Clinical Lectures ON DISEASES OF THE CHEST.

Delivered at Charing-cross Hospital,

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LECTURE VI.—PART I.

ON THE HÆMORRHAGES OF HEART DISEASE.

GENTLEMEN,—It is a good thing at times to pluck out a symptom and isolate it from those with which it is commonly associated, and study it apart by itself and in its relations. In this way we get a better knowledge of its varieties, of its reactions, and of its value as a coefficient in those complex pathological states in which it occurs; we are able to look at it all round, and contemplate it from different points of view; we can judge better how far it is essential, how far incidental, how far a cause, how far a consequence; we can see not only what *it* is without its surroundings, but what its surroundings are without *it*. Such a process is, in fact, a process of abstraction, and has all the advantages of that method of investigation.

I wish you to-day to treat in this way a symptom of which we have lately seen a good many examples in cases of heart disease that we have had, and some of which we still have, under our observation in the wards of the hospital—I mean the symptom of Cardiac Hæmorrhage. And I am anxious to direct your attention to this subject because it is an interesting one in many points of view. It is interesting as an example of a particular type of hæmorrhage; it is interesting physiologically, in relation to the results of impeded circulation; it is interesting from its clinical details and circumstances; it is interesting and important in relation to prognosis, often telling us to what degree of obstructiveness the heart mischief has reached; and it is interesting and important in relation to diagnosis, and may go a good way, in a doubtful case, to turn the scale of opinion as to the organic nature of the cardiac disturbance, and as to the exact seat of the lesion. I have seen cases where diagnosis has gone wrong for want of a knowledge of this symptom, and right from the possession of it; I have seen cardiac hæmoptysis, misunderstood, direct the attention to the lungs, and so away from its true cause; I have seen it, appreciated, lead at once to the detection of unsuspected heart disease. Finally, a knowledge of its true nature will guide us to the principles of its treatment.

And first as to the type of hæmorrhage of which it is a representative. It is an example of what may be called the "hæmorrhage of stasis"—of hæmorrhage caused by the inability of the walls of the bloodvessels any longer to resist the accumulating distension occasioned by the establishment of an impediment in front. Its explanation is entirely mechanical. I need not point out to you, gentlemen, how inevitable and how immediate is the production of a certain amount of hypertension when any bar to the free transit of the blood is placed at any part of the circulation. There are four points about this hypertension that are constant:—First, that it will be, *cæteris paribus*, proportioned to the degree of impediment in front; secondly, that it will be first developed and most developed immediately behind the point of impediment, wherever that may be; thirdly, that it will retrograde in a direction opposite to that of the circulation; and fourthly, that it will give rise to certain anatomical results in proportion to, and in strict dependence upon, the degree to which it is developed.

The first two of these propositions are self-evident, and require no explanation; the third is scarcely less so, and requires very little thought in order to see that it is necessarily true; indeed, if you think the matter thoroughly out, you will see that it is little more than a corollary of the second; for it is manifest that if the original stoppage brings the blood immediately behind it to a standstill, this blood, thus arrested, becomes a source of arrest to that immediately behind *it*, and that, in its turn, to the blood next coming up, and so on, higher and higher up the stream, further and further back, till at length the entire circuit is involved in the arrest. This fact we shall presently see to be of some importance in helping us to determine what are the particular vessels that are the seat of the hæmorrhage in certain cases. By the fourth proposition I mean that a certain amount of obstruction gives rise to anatomical results of one kind, and a certain greater amount of obstruction to anatomical results of another kind. The first result is merely to produce a certain degree of hyperbloodedness of the part—passive congestion—without any other appreciable result. As, however, the tension rises, instead of the feebly albuminous fluid that in a natural condition is ever escaping the vessels and irrigating the tissues, serum itself is poured out; in other words, the overdistended vessels relieve themselves by the transudation of a portion of their fluid contents, and in such quantities that the transuded fluid cannot be absorbed as fast as it is poured out, and, accumulating in the interstices of the tissues, constitutes œdema. Carry the tension a step further, and all the elements of the blood escape, corpuscles and all. Thus you have—first, congestion; second, serous transudation; third, hæmorrhage.

The simplest clinical expression of this, and one admitting the readiest and most deliberate observation, is what we often see taking place in a limb in the successive stages of systemic venous stasis, whether caused by heart disease or in any other way. At first the hands and feet are cold and blue, and the circulation in them is manifestly retarded. They then become œdematous, and swell. When the œdema has reached an extreme degree of development you observe perhaps, one day, a little purpura-looking spot or two; the next day you see several. The cuticle then, very likely, becomes raised in bullæ by the pent-up serum transuding the cutis; you then notice that in one or two of these bullæ the fluid is becoming sanious; it then becomes completely sanguineous; and finally you may have large bladders full of blood covering the hand or foot, its circulation brought to a standstill, the part becoming cold, boggy, and oozing, and undergoing a sort of hæmorrhagic gangrene. I have several times seen this, particularly in the young, in whom the results of impeded circulation become developed to the utmost before they succumb; and a horrible state of things it is. Place the same events in the lung, and what do you get? First pulmonary congestion, then œdema pulmonum, then hæmoptysis. Place them in the kidney, and what do you get? First renal congestion, then albumen in the urine, then hæmaturia.

We have lately had in the hospital, including those who are still under observation, ten cases of cardiac hæmorrhage, of one form or another. All these ten cases belong, curiously, to one of two varieties of valvular disease; seven of them are cases of mitral constriction, and three of double aortic disease. The three aortic cases were all men; the seven cases of mitral narrowing were all women, except one. Of the ten cases, six are dead, and four survive.

Let me now read you the notes of one of these cases, just as an example of the kind of thing you will meet with.

CASE 1.—William C——, aged thirty-two, a fine muscular man, with red hair and fair complexion, was admitted into the hospital on September 24th, 1869. He had been a soldier, had been in India, and had always enjoyed good health. About eighteen months ago he was laid up with rheumatic fever, on account of which he was pensioned. He was disabled by his rheumatism for nearly twelve months; and six months after he was first attacked began to suffer from pains over the base of the heart, experienced great difficulty of breathing, and was soon quite incapable of the slightest exertion. The pains in the region of the heart never abated, but about a month before he came into hospital, having taken fresh cold, they became much worse, and he was attacked at times with alarming dyspnœa.

On admission, the action of the heart was found to be very much accelerated, and the dyspnœa so urgent that no examination of the chest was attempted; he was harassed, moreover, with constant cough. The legs were very much swollen. He was ordered fifteen grains of compound scammony powder. The next day (the 25th), the dyspnœa having partially abated, the heart was examined, when a loud double bruit was found at the base, having all the

characters of systolic and diastolic aortic murmur. The pulse was rapid and feeble. He was propped up in bed day and night, being unable to recline in the smallest degree; and stimulants were constantly administered to him, the dyspnœa at times being so urgent as to threaten immediate suffocation. On Sept. 28th he coughed up some blood for the first time, mingled with mucous expectoration. The hæmoptysis continued getting worse day by day till Oct. 1st, when the amount of blood coughed up was about a pint. The ice which was given him to check it seemed to irritate the throat and increase the cough. On Oct. 2nd the dyspnœa was so urgent that he was unable any longer to stay in bed; he was placed in a chair, propped up with pillows, a hot bottle was put to his feet, the legs and lower parts of the body were wrapped in blankets, the ice was resumed, and in this position he got some relief, and the hæmoptysis was partially arrested. On the 3rd it still further diminished, but still continued with but little interruption. A nurse had to sit by him day and night and give him brandy, which was the only thing that at all relieved the frightful dyspnœa from which he suffered. He was quite blanched, and complained (as far as he could speak) of constant faintness. The pulse became increasingly feeble and irregular, the surface cold and damp, and the sense of faintness more and more distressing, until the morning of the 4th of October, when he died, the urgency of the dyspnœa remaining unabated, and the hæmoptysis continuing up to the end.

At the post-mortem examination both lungs were found almost universally infiltrated with blood—in part as well-defined masses of pulmonary apoplexy, in part in general undefined infiltration of the air-tubes. The heart was much hypertrophied; and on opening the left ventricle up to the aortic valves, two of them were found broken down into one by the destruction of the artery at their point of adjacent attachment; just below this point the wall of the vessel was eaten through, apparently by recent inflammatory ulceration, and there was a free communication with the pulmonary artery, so that the blood from either vessel might have passed freely into the other. Besides this, the valves were thickened, and puckered quite out of shape.

Exactly how much blood this man spat up in the seven days the hæmoptysis continued it would be difficult to say, but it was probably more than three pints, besides that with which his lungs were found stuffed after death. The method of his death was undoubtedly complex—partly from the mechanical impediment to the circulation offered by the ravages of the disease of which his aortic valves were the seat, partly from anæmia, and partly from the apnœa occasioned by the almost universal infarction of his lungs with fluid and coagulated blood.

It is not, however, commonly that the hæmorrhage is so profuse as in this case, or that it contributes, itself, to bring about the fatal issue. Generally the amount of blood is inconsiderable—not enough to produce any appreciable effect; and its importance is simply that of a symptom, as the following cases will show:—

CASE 2.—Anna G——, aged forty-three, a widow, by occupation a laundress, was suddenly seized, two years and a half ago, with all the symptoms of heart disease. Four months ago they greatly increased; but she continued her employment, though quite unfit for it, till a week before her admission into the hospital, when her dyspnœa rendered her unable any longer to move. When admitted (Dec. 24th) she was suffering from extreme difficulty of breathing, was unable to lie down day or night, the heart's action was irregular, rapid, fluttering, and feeble; it was impossible to follow its movements with precision, or count its pulsations. About sixty-eight pulsations could be counted at the wrist in a minute; but, if all the intermissions were filled up, it would make a hundred and forty. It can readily be understood how difficult it must have been to fix and verify a murmur in a heart whose rate of pulsation was a hundred and forty, and whose action was so feeble and irregular; nevertheless I thought I could plainly detect, when I got an unusually strong and sustained contraction standing out clear from its neighbours, a presystolic murmur—that I could verify a short apex-grind closed by the first sound.

She began to spit frothy, florid blood and blood-stained mucus on the day of her admission, and never stopped spitting it a single day after she commenced. It gradually increased in quantity till (after she had been in the hospital three weeks) she spat in twenty-four hours a quarter of a pint of a mixture of blood with a thin frothy mucus, in apparently about equal parts, the whole being of a brown-blood colour. After she had been in the hospital a month, feeling herself sinking, she insisted on leaving. The hæmoptysis continued undiminished, in spite of all remedies, up to the day she left.

CASE 3.—Maria S——, aged twenty-nine, a widow, began to suffer from palpitation and breathlessness about a year ago, soon after commencing to earn her livelihood by turning a mangle. Two months before her admission she apparently caught cold, and was seized with pain in the chest, difficulty of breathing, inability to lie back, palpitation, a bursting oppression at the heart, orthopnœa—starting up in bed at night in a breathless state,—and the expectoration of a "pink froth." These symptoms continued with very little abatement till the time that she came into the hospital. On her admission she is described as pallid, breathless, unable to lie down, or sleep except in a sitting posture, with the face puffed, the feet slightly swollen, cough, and the expectoration of frothy mucus, tinged with bright blood. The urine was smoky and highly albuminous. On examining the heart, a grinding murmur was heard at the apex immediately preceding, and wound up by, the systole. Under treatment the patient began to improve almost immediately. The hæmoptysis ceased in about a week, and did not return during the remainder of her sojourn in the hospital. She left in five weeks, suffering from nothing but slight dyspnœa and palpitation on exertion; but the murmur remained, and will remain.

CASE 4.—George C——, aged thirty-two, a fine and well-developed young man, and given to athletic sports, was seized with violent dyspnœa and palpitation while swimming, in the beginning of October. Shortly after this he noticed the same symptoms when rowing, and applied to this hospital as an out-patient on October 14th. He was then unable to sleep for more than five minutes at a time, and was obliged to sit in a chair all night, the orthopnœa preventing his lying down. On examining the heart a diastolic murmur of musical, rasping character was heard at the base, and less strongly at the apex; and a slight blowing systolic one also at the base, and along the course of the aorta. He was admitted on November 19th. A few days after his admission he began to spit blood, in small quantities and frothy, which continued for several days, and then ceased. On the 12th of December he left the hospital much relieved, the blood having ceased for some days. On February 28th he was readmitted. All his old symptoms had returned, he was unable to lie down, got hardly any sleep, and the hæmoptysis had reappeared with greater severity than before. Under the treatment which was adopted, and which I will speak to you about presently, this and his other symptoms soon abated; and when he left for the Convalescent Institution at Walton, on the 24th of March, all hæmorrhage had ceased, the heart had very much quieted down, the palpitation and dyspnœa were only felt on exertion, and he could sleep; but the double murmur at the base was, of course, unchanged.

Now, in these cases of cardiac hæmorrhage, such as I have just related to you, what are the bleeding vessels? We have evidence of such a state of things on the left side of the heart as must greatly obstruct the pulmonary circulation; the patient discharges blood, manifestly from the air-passages; where does the blood come from? From the lungs, you will tell me. Doubtless; but when you have told me that, you have only approximately answered my question. There are two sets of vessels in the lungs—two independent circulations,—from either of which, conceivably, the blood might come: the pulmonary circulation, the circulation of function, bringing venous and returning arterial blood; and the bronchial circulation, the circulation of nutrition, bringing arterial and returning venous blood. From which of these two is the blood of cardiac hæmoptysis derived? Bearing in mind the relative position (in relation to the circulation) of these two sets of vessels, and bearing in mind, too, what I told you just now—that the hypertension of circulatory obstruction is first developed and most developed immediately behind the point of impediment,—we should naturally conclude that the pulmonary vessels were the seat of the hæmorrhage; and this first impression would, I do not doubt, be the correct one.

The considerations that, to my mind, point to this view with the greatest force are these:—

1. Its *primâ facie* reasonableness: the whole weight of the most manifest probabilities is in favour of it. Here you have vessels immediately behind the point of obstruction, vessels peculiarly bare and unsupported by the external pressure of surrounding tissue elements, and through which, as well as through the right side of the heart, the obstructing force must necessarily be propagated in order to reach the bronchial vessels; and surely it is reasonable to believe that, thus exposed to the whole brunt of the obstructing force, they would be the first to yield, rather than those more distant vessels which they themselves are the only means of access to, and which are guarded from the obstructive force by two sets of valves.

2. That the hæmoptysis is sometimes entirely unaccompanied by those signs of general venous stasis, dropsy, &c., which ought to exist if the hæmorrhage was due to the obstruction having retrograded upon the bronchial vessels; for it is only as a part of the general venous system that the bronchial vessels could become sensible of it and affected by it.

3. That the hæmoptysis is often unaccompanied by mucous expectoration or mucous sounds, which ought to exist, and necessarily would exist, in the presence of such bronchial congestion as the hypothesis of the bronchial source of the hæmorrhage would imply. For the congestion to be such as to rupture the congested vessels it must be extreme, and I hold that you cannot have bronchial congestion without mucous exudation.

4. That in the majority of cases in which extreme pulmonary congestion is brought about in the later stages either of heart or lung disease, where you have mucous exudation, pulmonary œdema, and general dropsy, no such hæmorrhage takes place.

If, then, this is so—if the pulmonary capillaries are the seat of the hæmorrhage in disease of the left side of the heart,—the hæmoptysis of heart disease is derived from a different set of vessels from the hæmoptysis of apnœa. I used to think their source was the same. I used to think that the blood was pulmonary, and not bronchial, in both cases; that, for example, in the hæmoptysis of asthma, as much as in that of mitral constriction, the blood was derived from the pulmonary capillaries of the air-cells, ruptured by congestive distension. And I thought so in obedience to what I was taught. I was always taught that when the circulation through a part became arrested in consequence of its function being impaired or suspended, it was due to stoppage in the capillaries, from failure of a certain circulatory force supposed to be resident in these vessels, and necessary for driving the blood through them—the *vis nutritionis* or *vis capillaris*, as it was called. The capillaries, thus unable to pass the blood onwards, became engorged, and the distension, if extreme, resulted in rupture. But a great deal of evidence, both positive and inferential, has been brought forward to show that the direct effect of the shutting off of air from the lungs is to starve the pulmonary capillaries of blood, and not to load them with it; and that the stoppage is due to the contraction of the minute pulmonary arterioles. The whole weight of evidence derived from Dr. Geo. Johnson's observations on thickened arteries in chronic kidney disease points to this; and so does the fact that the lungs of criminals who have been hanged, and of dogs killed by plugging the windpipe, are found remarkably anæmic, and collapse to an unusual degree. The blood, therefore, that an asthmatic coughs up after a paroxysm of unusual severity, or that flows from the mouth of a drowned dog, is, it cannot be doubted, derived from the bronchial capillaries, and perhaps venules; it depends upon the obstruction, started at the pulmonary arterioles, retrograding through the right side of the heart upon the venous system, and it shows how promptly the condition of hypertension is propagated backwards in spite of the two sets of valves with which the right chambers of the heart are guarded.

But whilst it is probable that the hæmoptysis of valvular disease affecting the *left* side of the heart is pulmonary, and not bronchial, it is manifest, on the very same grounds, that hæmoptysis from valvular disease affecting the *right* side would be bronchial, and not pulmonary; in each case the vessels ruptured would be those next behind the point of obstruction. Disease of the valves of the right side of the heart without similar and even greater disease on the left side is, however, so rare, that positive data as to the occurrence and nature of hæmoptysis from uncomplicated dextral valve-lesion must be wellnigh wanting. One of our cases furnished, I at one time fancied, such an example; I will relate to you the particulars of it.

CASE 5.—Eliza A——, aged twenty-four, was admitted into the hospital on January 6th, suffering from extreme dyspnœa, palpitation, œdema of the lower extremities, and, indeed, all the symptoms of advanced heart disease. She had rheumatic fever eleven years ago, but suffered from no heart symptoms till within the last twelvemonth. She was unable to lie down, her pulse was weak and rapid (120 per minute), respirations 48, and she was constantly spitting—and had been for two or three days—small pellets of blood and blood-stained mucus. On examining the heart, a systolic murmur was heard of maximum intensity at the lower sternum in the middle line, at a point corresponding to the margin of the right ventricle. It could be heard faintly both at apex and base; but its point of maximum intensity was the right ventricle. There was no mitral murmur; but the first sound was not clear and natural. She died on the 11th, five days after her admission, continuing to spit pellets of blood to the time of her death. The diagnosis that was deduced from the physical signs was—tricuspid regurgitation, and such a state of mitral valve as prevented its sharp and sudden closure, probably a thickened and leathery condition of it, but not such as necessarily implied any interference with its function. There was no sound that actually pointed either to mitral constriction or insufficiency.

Here, then, was a case of cardiac hæmoptysis in which there was no reason for believing that there was any obstruction on the left side of the heart, or any state of congestion, therefore, of the pulmonary capillaries, but in which the tricuspid regurgitation would imply that these capillaries would receive less blood than usual; while the bronchial vessels would be unable to empty themselves forward in consequence of the regurgitation into the right auricle, and would become, therefore, the seat of congestive distension. Here, then, I thought, was a case confirmatory of the correctness and sufficiency of Dr. George Johnson's explanation of the seat of the hæmorrhage in the hæmoptysis of apnœa, and suggestive also of the possibility that such might be the source of the bleeding in cardiac hæmoptysis generally. The post-mortem examination, however, entirely destroyed the value of the case in this point of view; for while the tricuspid valve was found so diseased as necessarily to have given rise to regurgitation, and to confirm the correctness of the interpretation we gave to the lower-sternal murmur, still the mitral orifice was found narrowed to a degree so extreme as to account for any amount of stasis and engorgement of the pulmonary capillaries. The case, therefore, left the question where it was before; and the blood probably came, as in other cases of mitral and aortic disease, from a pulmonary, and not a bronchial, source.

Clinical Lectures
ON
SOME STRAY SUBJECTS OF HOSPITAL SURGERY.

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LECTURE VI.
GONORRHŒA AND GLEET.

I HAVE been requested to give a lecture on syphilis; but as the disease known as syphilis comprises a part only of venereal affections, and by no means the most frequently met with in private practice, I prefer to introduce in the necessarily brief comments I have to make for your instruction some remarks on the most common form of venereal disease—viz., gonorrhœa and gleet, reserving the subject of syphilis for the next lecture.

I need scarcely define gonorrhœa, and if I attempted it I should assuredly betray my disbelief in its generally received pathology. Perhaps it is wiser for young members of our profession to follow the well-beaten track of general

opinion. However consonant it may be with the maxims of the intellectual world to consider truth as the aim and object of study, and thought, and reflection, it is a dangerous experiment to eschew what is termed authority, and to deviate from the declared opinions of the majority of the world. I have tried the experiment, and I do not advise you to repeat it. Gonorrhœa consists in a purulent discharge from the urethra or vagina following sexual intercourse, attended with symptoms of more or less severity. These I shall not dwell on. General opinion adopts the belief that an attack of gonorrhœa results from intercourse with a woman who is herself the subject of that disease. I doubt the soundness of that opinion. How often in the course of the career of a surgeon has he had the opportunity of ascertaining this fact by a personal examination of both parties? I am far from asserting that it is not communicable from one to the other sex. That fact is, I believe, indisputable; but long and ample experience has taught me, as I shall from that experience tell you, that gonorrhœa in the female is by no means essential to its production in the male; and I think you will find, on careful inquiry and examination, that the very large majority of cases of gonorrhœa in the male are the result of intercourse with women who have no ascertainable form of purulent discharge whatever. It is a remarkable fact that some men are much more prone to gonorrhœal disease than others. Some men pass through the ordeal of London life without having been once the subject of the disease; while others pursuing a similar career of dissipation take the disease three or four times in as many years. It is also worthy of observation that gonorrhœa is a disease of early manhood, and not of middle life. It is most severe from eighteen to twenty-three years of age, and the first attack is, as a rule, the most severe, but not invariably so. I am quite certain that I have seen cases, and among the most severe cases, of gonorrhœa the result of intercourse *immediately* after the catamenial period. Mr. Abernethy was perfectly familiar with the fact that a man having intercourse with a healthy woman might become the subject of the common or soft sore; while to other men the same woman proved perfectly harmless. If venereal sores, why not gonorrhœa? If you ask me by what process of supposed inoculation the gonorrhœal matter makes its way down the urethra, I really cannot answer you; but it is a curious feature in the disease, and as the same locality is affected in cases in which the disease results from intercourse with women either during or immediately consequent on the catamenial period, in whom there is no suspicion of gonorrhœal discharge, is it quite certain that in ordinary cases the inoculating matter makes its way three-quarters of an inch along the narrow canal of the male urethra? I do not assert that such women are absolutely healthy as regards the genital system, but I do not say they are not so. It is probable that they are the subjects of some form of discharge or secretion, innocuous both to themselves and others, that is capable of developing disease of a severe form in some constitutions, but not in others; for I fully believe the constitution is involved in the liability, and that gonorrhœa is not simply and entirely a local affection. It is needless to quote examples, but I have never for years been consulted in a case of either gonorrhœa or primary gleet that I have not made at least a verbal inquiry as to the source of the disease. It has been suggested as a mode of getting over the difficulty that the cases I allude to are not examples of true gonorrhœa. Then what constitutes true gonorrhœa? If copious purulent discharge from the urethra, attended by burning pain during micturition, and chordee at night, do not constitute true gonorrhœa, my knowledge of that disease is defective.

Gleet is a modified form of gonorrhœa, and exists either as a primary or as a secondary affection. Protracted gonorrhœa almost invariably runs into gleet, or an attack of gleet may be the direct consequence of sexual intercourse in a man, especially towards middle age. Primary gleet is uncommon in boyhood, or in early manhood. The discharge in either case is rarely very great, nor is the pain in micturition severe. Active exercise, whether on foot or on horseback, very hot weather, excess of wine, very late hours, all tend to increase the evil, whether of the primary or secondary form, and to bring it in the direction, and sometimes even up to the level, of a gonorrhœal affection.

Purulent discharges from the urethra, like exanthematous diseases, have a given term of progress, maturity, and subsidence. The average duration of a case of gonorrhœa is from six to eight weeks,—that is if left to nature. For gleet the term is uncertain. When a case of gonorrhœa runs into gleet, weeks and months may be required for its cure, whereas primary gleet is usually curable in a fortnight or three weeks. The difference between the two cases of primary and secondary gleet depends on the previous treatment of the gonorrhœa. If, in consonance with a too prevalent pathology, we class a case of gonorrhœa among the inflammatory diseases, and treat it with supposed antiphlegmonous agents, among which may be included purgative and other depletive medicines, reduced diet, vegetable food, and the entire suspension of vinous and fermented drinks, which have hitherto formed a part of the daily diet of the affected persons,—then, as a rule, the active gonorrhœa runs into gleet, and, the same remedies being continued, the gleet will be protracted to the extent of weeks, months, and in some constitutions even of years. In fact, the gleety discharge, which consists for the most part of a watery ichor, containing more or less pus-globules, is a sort of dropsy of the urethra, and the more we deplete the more persistent is the discharge. When I was on duty in the out-patient department at St. Bartholomew's Hospital, a man applied for treatment for a gleet of three years' duration. He belonged to a large brewery in the Mile End-road, and had been accustomed to drink two quarts daily of strong ale, but had by medical order totally abstained from his accustomed drink from the commencement of his malady. I ordered him to return immediately to his former beverage. Within a fortnight he had entirely recovered.

In the treatment of gonorrhœa, we should always keep in mind the important fact that it has a natural period of subsidence, or cure, if untreated; that at the expiration of six to eight weeks it will die a natural death. Therefore, it cannot be a wise or judicious proceeding to commence the treatment by active purgation, or other form of depletion. I believe a mild aperient or two to be unobjectionable, and I have found benefit from a powder containing twenty grains of jalap and two drachms of powdered gum arabic, taken at night in half a tumbler of milk. This may be repeated for two or three nights, and then I think we should rest on our oars for a week or ten days, abstaining from active exercise, but adhering to the usual habits of diet, unless the daily consumption of wine or other alcoholic drinks is large; if so, I would reduce them partially both in quantity and potency. As early as the local pain and the profuse discharge are somewhat reduced, I advise you to resort to iron, quinine, or other tonics, and to increase the consumption of wine on the same tonic principle, commencing with a moderate dose, and increasing the quantity rapidly up to a full dose of the compound medicine. I generally prescribe ten or twelve grains of the citrate of quinine and iron twice daily. At the expiration of about a week from the commencement of the treatment by tonics, I would suggest a simple injection of one grain of sulphate of zinc to the ounce of water, to be used night and morning, and then thrice daily. It may be necessary towards the latter stage, if the progress is slow, to add ten minims of copaiba balsam twice daily. Beer is unobjectionable.

In cases of primary gleet, the success of the tonic treatment above mentioned is remarkable, as it will often, in mild cases, cut the disease short in three or four days; but in such examples, there is an entire absence of painful micturition and chordee. If these symptoms are present, the tonic agents should not be resorted to until the expiration of a few days. If, unfortunately, orchitis should occur pending its existence, the treatment by tonics, most valuable in its absence, should not be resorted to.

DISEASED MEAT IN DUBLIN.—From the report of Dr. Cameron, the city analyst, for the month of August, it appears that during that period fifty-two carcasses of oxen, two of sheep, one of a lamb, and two of pigs, besides about 261 lb. of putrid bacon, and 50 lb. of beef in small pieces, were, on his evidence, condemned and confiscated as being unfit for human food. It is to be regretted that none of the delinquents suffered imprisonment, which form of punishment, as the Dublin magistrates ought to understand by this time, is the only method which will tend to remove this widespread evil.

ON APHASIA.

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Definition.—"Inability to communicate thoughts, ideas, or names of things, either by words or writing, the intellect being more or less perfect otherwise, and the organs of phonation free of paralysis. The affection may be associated with unilateral paralysis or spasms, and be subsequent to apoplexy. There may be disease of the third left frontal convolution, or in the left anterior lobe of the brain near to this convolution, and various other lesions of no constant kind."

It will be perceived from this definition of aphasia, taken from Aitken's Practice of Medicine, that the term is intended to express the loss of the power of articulate language proceeding from other causes than paralysis of the vocal cords or other disorder of the organs of speech. It is distinguished from aphonia in that that disease is brought about usually by some affection of the muscles of the larynx from overstraining of the voice in singing or speaking, cold or sudden changes of weather, rheumatism of the parts, tumours, warty-like growths, thickening of the chordæ vocales, paralysis, &c. In aphasia no abnormal condition whatever of the vocal cords can be found—they are intact in all their parts; and, in what we may term *pure* cases, there is no want of innervation.

M. Trousseau regards the disease as a loss of memory of words. Ideation proceeds, but words, by which external manifestation of ideas is made, by which they are communicated to others, cannot be employed. The patient thinks—may be thinks as correctly as ever he did,—but is unable to make his thoughts known by articulate sound to those about him.

Language consists of sounds, which are the signs of our ideas, and it is always supposed to keep pace with them. With barbarous tribes of people, possessing but few ideas, and those of the simplest character, we find but few words constituting their vocabulary; but as they become surrounded by new circumstances, as their experiences increase and become less simple—more complex,—there results a wider range of thought, and need of a larger compass of words to give them utterance; and not only so, but there is required the ability to connect words into sentences, in order to express successive ideas associated together, and also compounds and modifications of different kinds, to set forth the different shades of meaning.

In his article on the Law of Evolution in his work on "The First Principles of Philosophy," Mr. Herbert Spencer speaks as follows with regard to language:—"The lowest form of language is the exclamation, by which an entire idea is vaguely conveyed through a single sound, as among the lower animals. That human language ever consisted solely of exclamations, and so was strictly homogeneous in respect of its parts of speech, we have no evidence. But that language can be traced down to a form in which nouns and verbs are its only elements, is an established fact. In the gradual multiplication of parts of speech out of those primary ones, in the differentiation of verbs into active and passive, of nouns into abstract and concrete,—in the rise of distinctions of mood, tense, person, of number and case,—in the formation of auxiliary verbs, of adjectives, adverbs, pronouns, prepositions, articles,—in the divergence of those orders, genera, species, and varieties of parts of speech by which civilised races express minute modifications of meaning,—we see a change from the homogeneous to the heterogeneous."

In other words, we have an evolution of language following and the result of an evolution of ideas. As one proceeds from the simple to the complex, and the still more complex, so does also the other. When the former has attained to a wide compass, and contains words expressive of the nicest shades of meaning; when the most complex relations of thought can be expressed by it; when it has become competent to set forth the most intricate processes of reasoning—the latter first have been developed into a wide range—the individual has acquired a nicety of discrimination and ability to note differences, when previously they were not perceived, and first has discovered the relations, as the result of experiences, which phenomena present, and the deductions which must follow. Thought, therefore, it will be seen, must precede language, and in no case can there be language without thought. The former is but a manifestation and measure of the latter. They are intricately interwoven; but while ideas are necessary for words, words are not necessary for ideas. The case of Laura Bridgman, which has been quoted by writers in evidence, who was deaf, dumb, and blind, proves that it is possible to think without words, as well as to express thoughts without words, and it seems to me that every case of congenital deafness, with its consequent dumbness, illustrates the same fact.

In reply to the objection that we do think of a word before or without uttering it in speech, Dr. Maudsley, in an article in the London LANCET of last year, says, "We ought to be careful not to mistake the conventional sign for the thing signified. What we really have, as the essential factor, in the mind is, not the word, but the motor intuition denoted by the word, just as we have in the mind the conception of any other voluntary movement before making it. There is, in fact, a modified activity of the motor centre in relation to the thought sufficient to suggest the word, but not sufficient to issue in outward expression. It is well known that some persons of a dull and feeble understanding are obliged sometimes to call the actual movements of speech to their aid, in order to get a distinct conception; it does not suffice them to rehearse mentally the words, but they must repeat them aloud;—that subdued activity of the motor centres, that internal representation of the words, which is sufficient for persons of ordinary understanding, not being sufficient for their sluggish minds.....It is plain, then, that the motor intuitions, not of speech only, but of other movements, constantly and essentially intervene, more or less consciously, in our mental processes—that there is a constant interaction between the motor and the ideational centres in cerebration. In the case of speech, we mark each movement by a conventional sign or word, so that the sign comes to stand in our minds for the thing denoted by it." When we think, then, and do not give utterance to our thoughts, it is the motor intuition we have in mind, and not the word; and in the case of mutes, the motor intuition of the movements of another set of muscles besides those of the tongue, larynx, &c., is substituted. An individual instinctively associates his ideas with certain muscular contractions; and when the association has become of the strongest kind, every thought brings up its associated movement, as when an idea is associated with another idea, it cannot be excited without the other also appearing in the mind. It is stated that Laura Bridgman's fingers worked, making the initial movements for letters of the finger alphabet, not only during her waking thoughts, but in her dreams. I disagree, however, with Dr. Maudsley that a motor intuition of some kind is an essential factor of thinking, for I do not consider that it is supported by sufficient evidence, and also because, if such was the fact, there could be no increase of ideas among a people beyond what their vocabulary afforded. It is not until *after* an idea has been formed that a word or sign of any kind is constructed to represent it, so that for a time, longer or shorter, it is unassociated with any muscular movement, and only becomes so because there is a potentiality for it, and no positive proof has been adduced that this potentiality necessarily exists.

Says Claude Bernard, in his address at his reception into the Academy of France: "We designate by the term 'centres' the nervous masses which act as the medium of the points of arrival of the nerves of sensation and of the points of departure of the nerves of motion. It is in this soldering substance, which is the latest organised, that the exercise of the function opens and hollows, as it were, the channels of communication of the nerves which are to correspond physiologically. The nervous centre of speech is the first we see traced in the child. The sense of hearing is its necessary point of departure. If the organ of hearing be wanting, the centre of language will not be formed; the child born deaf will remain dumb. In the education of the organs of speech there is consequently established between the auditive sensation and the vocal motion a veritable nervous circuit which connects the two phenomena in a

common functional object. At first the tongue prattles; it is only by habit, and aided by frequent repetition, that the motions become sure, and that this central communication of the nerves grows easy and complete. Nevertheless, it is only with age the function is printed definitely in the organisation. A young child who ceases to hear gradually loses the faculty of speech which it had acquired, and again becomes dumb; while the adult man placed in the same conditions never loses speech, because in him the centre of language is fixed, and the development of the brain complete. At this period of life the functions of the acquired centre have become really involuntary, as if they were innate. .... Speech in the accomplished orator is, as it were, instinctive; and all of us have seen the practised musician's fingers execute of themselves the most difficult pieces without the assistance of the mind, which is often occupied by other thoughts." And it may be added that speech may continue on and on for a long time without the individual being at all conscious of it. There are very few persons who have not read aloud for an hour or more for the entertainment of others, while their thoughts were engaged in the contemplation of subjects entirely foreign to what they were doing, and unable at the close to bring into mind a single fact of the many they had just repeated with their lips. In such instances the vocal act is simply sensori-motor, the visual impression of the printed letters upon the sensorium commune being sufficient to keep up the movements of the muscles of the organs of speech.

Two essential factors, then, as Dr. Maudsley states, enter into intelligent speech—the idea, and the motor act; "the former having its seat in the grey matter of the convolutions; the latter proceeding from the nerve-centres of the motor nerves which go to the tongue and other muscles concerned in speech. The subordination of motor to ideational nerve-centre here is in conformity with the subordination of all other motor centres to the supreme ideational centres; and the muscular acts of speech proceed from their appropriate motor centres, just as the muscular acts of a limb which is accomplishing some intelligent purpose proceed from its appropriate motor centres." An idea formed in the cortical substance of the cerebrum effects an impression upon the sensorium commune—the seat of consciousness, according to Dr. Carpenter, not only of external but of internal impressions—through the convergent fibres of the medullary substance of the brain; and then, if attended by a desire or feeling, giving it a direction outwards; or, if not checked by a volition, it finds expression in language; or if hindered, or if sufficient force has not been set at liberty in the sensory centre, it only excites consciousness, without resulting in any external manifestation.

(To be concluded.)

ON A

CASE OF ANEURISM BY ANASTOMOSIS, AND THE SURGICAL MEANS BY WHICH A CURE WAS EFFECTED;

WITH CLINICAL REMARKS.

BY JOHN D. HILL, F.R.C.S.,

SURGEON TO THE ROYAL FREE HOSPITAL, AND ASSISTANT-SURGEON TO THE ROYAL ORTHOPÆDIC HOSPITAL.

ANEURISM by anastomosis is a disease perhaps sufficiently rare in hospital practice to render instructive a retrospect of the case in Crawshay ward while the facts are fresh in our minds; since the characteristic symptoms of the disease, its recurrent tendency after operation, and the respective surgical steps which may be necessary to effect a cure, have there been severally well shown.

The patient, a small imperfectly developed woman, aged twenty-five, married, but without issue, had enjoyed good health until three years ago, when she fell downstairs and struck her right temple, which immediately swelled up, and the tumefaction lasted several weeks. Shortly afterwards lancinating pain attacked the seat of injury, and extended to the temporal, occipital, and frontal regions. Six months later a swelling, which she could then cover with the tip of a finger, appeared; this gradually increased, and was accompanied by pain of a throbbing character, first occasional, but afterwards constant, and aggravated by exertion or excitement, and ultimately by the erect posture. At length, driven to recumbency, she sought the advice of Dr. C. Drysdale, by whose courtesy she was admitted into the Royal Free Hospital, under my care, on Dec. 10th, 1869.

She now had an anxious expression of countenance and lachrymation of the right eye, and the flushed cheek and ear-redness of the affected side contrasted with the pallor of the corresponding part of the healthy side. Toothache, buzzing of the ear, occasional earache, partial deafness, and pain chiefly referred to the branches of the upper cervical and fifth nerves, were also complained of. In the right temporal region we remarked an ill-defined pulsating tumour, which involved an area of about two and a half square inches. Its surface was somewhat irregular, being composed of sinuous prominences (apparently bloodvessels), with slight sulci intervening, thinly covered by skin, especially at one point near the centre; it presented a livid hue, the more apparent after removal of the hair. Pulsation was very distinct; and the delicate septum between the circulating fluid and external air was here and there semi-transparent. We next observed the tortuous and dilated temporal and posterior auricular arteries, traceable from their origin to their distribution, like varicose veins beneath the skin; these elongated vessels, three times their normal calibre, coursing upwards, became lost in the tumour. On manipulation a liquid thrill was detected, and the tumour uniformly expanded with each pulsation, which was synchronous with the common carotid and radial arteries. The tumour in great part was reducible by digital pressure, but on removing this it instantly returned. On auscultation we remarked a soft blowing murmur, similar to the jugular venous hum occasionally heard in cases of valvular disease of the heart. We now applied digital pressure, firstly to the arterial trunk, and secondly to the branches, with the following result: compression of the common carotid considerably reduced pulsation in the tumour, but simultaneous pressure upon the temporal and posterior auricular arteries near their origin apparently arrested it; the pain produced, however, rendered this intolerable.

Dec. 14th. — To-day we ligatured the temporal and auricular arteries close to their origin. Incisions half an inch in length were made, valvular, so as to avoid wounding those subcutaneous vessels. Immediate cessation of all visible pulsation in the tumour followed the application of the ligature, but in a few minutes a slight wave returned, which, however, yielded to acupressure of the occipital artery just above the posterior border of the sterno-mastoid muscle.

15th. — The tumour is considerably flatter, smaller, and non-pulsating.

16th. — Tumour feels solid, and gives no perceptible impulse; but on pressure at one spot a faint wave leads us to suspect an intracranial communication, and probably with the middle meningeal artery. Occipital thread slackened.

18th.—Suppuration renders necessary the withdrawal of occipital pin.

21st.—Tumour again distinctly pulsates, but is lessened in size by one-third. Ligatures have separated from both arteries.

Jan. 8th, 1870.—Wounds are healed; pulsation in tumour is increased. Supplying branches of the occipital, temporal, posterior auricular, supraorbital, and those crossing from the opposite side, were now acupressed, the pins being inserted about a quarter of an inch from the free margin of the tumour; this has apparently arrested pulsation, but produced considerable pain. Prescribed twenty minims of tincture of opium, to be given every four hours if needful.

9th. — Has passed a restless night. The tumour is non-pulsating, flattened, tense, and livid on the surface.

10th.—Tumour now feels solid.

11th. — At the thin point previously alluded to faint pulsation is felt.

13th.—We removed all pins.

20th.—Tumour is now about one-third its original size.

25th.—Pulsation is slightly increased.

30th.—Pin-holes are healed. Under chloroform, a double ligature thread was now passed beneath the tumour backwards and forwards (four times) at short intervals (half an inch); the loops were then cut, and the skin between each pin was incised about a line from the margin of the tumour;

the ends were next tied together, the threads sank into the incision, and so the mass was strangulated. From this date all pulsation ceased.

31st.—Has suffered much pain from compression of the nerve-filaments, which an opiate has relieved.

Feb. 12th.—Tumour appears black and gangrenous, but is still undetached. Arterial hæmorrhage threatening, two long straight needles were passed crucially through the centre of the base of the tumour, and a strong thread was tightly drawn around it beneath the needle ends.

14th.—Sphacelated mass is detached this morning, but with some arterial bleeding from a good-sized vessel; pressure controls it.

18th.—Wound is cicatrised, and she leaves the hospital in good health.

August 15th.—Continues well.

Let us now briefly consider the chief points of this case. The patient's description of her early symptoms leads us to attribute the disease to a blow; and indeed, upon examination, we can discover no other cause apparent. With this view probably several branches of the temporal artery were simultaneously injured, leading successively to (1) extravasation of blood, (2) to temporary interruption of the current through the affected vessels, (3) to a free anastomosis between their branches and those of the occipital and posterior auricular arteries, and (4) to progressive dilatation of these vessels into an aneurismal tumour.

During the early arterial changes the patient was troubled with pain of a shooting character in the occipital, frontal, and temporal regions, probably from local irritation of the branches of the sympathetic, the fifth, and occipital nerves; but subsequent pain of a throbbing nature possibly depended upon the degree of aneurismal tension, for we learn that exertion, excitement, or any cause tending to increase the heart's action, always aggravated it. With the growth of the tumour at a later period we have further irritation of the sympathetic and fifth nerves, exemplified in the flushed cheek, ear-redness, lachrymation of the eye, pain and buzzing of the ear, and partial deafness, symptoms referable to the numerous communications between the vasal branches of the sympathetic and the filaments of the fifth nerve.

On manipulating the tumour we became sensible of a liquid thrill and a lateral pulsatile expansion synchronous with the carotid and radial beats, symptoms which an idiopathic aneurism containing liquid blood would yield; here, probably, due to the excessive thinness of its coverings, the tenuity and close contact of its respective arterial walls, and the almost direct communication with the external carotid through its dilated feeding branches. We find the distended subcutaneous vessels composing the tumour reducible to a great extent by digital pressure, and on applying the stethoscope we detect a soft bruit; the former to be explained by the free and abundant inosculation with their supplying arteries and with one another; the latter by the interchange of currents flowing in different directions within the tumour.

We now come to the practical question of treatment. And here we must pause to examine the arterial distribution of the locality, and so determine the effect upon the tumour of respective distal, mediate, and direct compression of its supplying vessels from below upwards; or, in other words, whether it is desirable to ligature the main artery, the larger branches, or the tumour itself, continuous pressure upon these structures, for obvious reasons, being inapplicable. Now compression of the common carotid lessens pulsation in the aneurism, but simultaneous compression of the temporal and auricular arteries apparently arrests it. To strangulation of the tumour, three obstacles arise—firstly, its large size; secondly, the danger of hæmorrhage on the separation of the ligature; thirdly, the question of intracranial communication.

Our line of treatment is, therefore, clearly defined, and we proceed to ligature the temporal and posterior auricular arteries close to their origin; immediate arrest of all aneurismal pulsation accrues, but in a few minutes a faint return is apparent, which we control by acupressure of the occipital artery.

Forty-eight hours afterwards we again observe slight pulsation in the tumour, which probably springs from the supraorbital and the other arteries crossing the mesian line; but the operation ultimately reduces the aneurism by one-third.

So soon as the wounds are healed, we acupress all the supplying vessels close to the margin of the aneurism, and thus arrest all pulsation for the time being. We are, however, again disappointed; for in three days it returns. Nevertheless, twelve days subsequently, the tumour, although feebly pulsating, is found reduced to one-third its original size.

Finally we strangulate the whole mass, and so control all appreciable pulsation. Twelve days afterwards the slough has not separated, notwithstanding its black and gangrenous appearance. We therefore transfix its base with pins, and further ligature it. Separation occurs in forty-eight hours, and even then with hæmorrhage from a largish vessel. The wound now heals, and we have no more trouble.

Perhaps the line of treatment pursued may seem to have been a tedious one, notwithstanding its successful issue; but to deligate the tumour in the onset would have been to incur a risk of serious hæmorrhage on its detachment, to say nothing of the question of meningeal connexion.

Lastly, it was deemed expedient to further strangulate the tumour, even though pulsation had apparently ceased, lest any portion of it containing unobliterated vessels should lead to a recurrence of the aneurism.

Guilford-street, Russell-square, Sept. 1870.

FATAL ARTERIAL HÆMORRHAGE FROM THE EAR AS A SEQUEL OF SCARLET FEVER.

BY P. J. HYNES, M.D., M.R.C.S. ED.

NEVER having hitherto met with a case similar to the following, although I have been for many years engaged in a tolerably extensive practice, and had repeated opportunities of attending epidemics of scarlet fever in all their multiform varieties, I have no hesitation in requesting its publication in THE LANCET.

On July 6th I visited A. E. C——, a very fine strong-looking boy, aged rather more than four years. The child had been ill for three or four days before my attendance. He was hot and feverish; pulse quick, about 120; bowels open; urine passed in very large quantities, so much so as to suggest the probability of its being diabetic. The body generally was well covered with the characteristic exanthem, and the eruption very well developed. My treatment under the circumstances might be defined in general terms as passive—an avoidance of the *nimia medicina diligentia*:—mustard pediluvia every night; sponging the body with warm vinegar-and-water and tepid solutions of chloride of lime; mild aperients; and small doses of chlorate of potash three times a day. There was no evidence of the existence of any prominent anginose symptoms. There was, however, so much fractiousness on the part of the little patient that it was almost impossible to examine the tonsils without exciting him very much—a circumstance that I am always anxious to avoid, unless it may be attended with some compensating advantages, such as those resulting from the application of caustic, &c., to the fauces and tonsils.

Under the above treatment the child progressed very favourably until about the fourteenth day, when he was able to go downstairs, and appeared to be convalescent. A swelling which had formed under the right ear (from the meatus of which there oozed a slight mucous discharge) gave way under a few applications of iodine paint.

On the fifteenth or sixteenth day from the commencement of the fever, dropsical symptoms began to manifest themselves. The urine became very scanty and high-coloured; not more than a few tablespoonfuls were passed in the twenty-four hours. It was examined, and found to contain albumen in moderate quantities. The fractiousness or irritability returned, and the little sufferer became very unmanageable. About the seventeenth day the urine assumed a dark appearance, containing unmistakably blood matter. About this period (another child having been taken ill in whom dropsical symptoms had very early shown themselves—about the fifth or sixth day of the fever) I obtained the

valuable co-operation of Dr. Lory Marsh, of this town, whose suggestions I very willingly adopted. Tolerably large doses of iodide of potassium, accompanied with small ones of digitalis, were successfully administered, and the dropsical effusion gradually subsided. The state of irritability, however, continued (in this particular also both cases being alike); and Dr. Marsh wished small doses of hydrate of chloral to be administered, under which treatment I was glad to observe both patients progress. I may here observe that this condition of irritability, from its being frequently present during the periods of dentition and lactation, is designated among the working classes "teatiness"—a provincialism which may be a derivative from *teat* or *teeth*, or more probably a corruption of *testiness*; and is far from being an agreeable adjunct to the disease in one's examination of the case, unless the medical man is a stoic, or is endued with an angelic temper. The hydrate of chloral was found to be a valuable calmative remedy, and the progress of the disease so far gave every indication of a favourable termination. The subsidence of the dropsical effusion, the increase in the urinary secretion and the absence from it of both blood and albumen, the restoration of tranquillity to the nervous system, and the return of appetite, were all indications of a rapid return to health.

On the night of the 26th of July, the twenty-second day from the commencement of the fever, the child was so far recovered as to ask for a crust of dry bread, which he ate eagerly, and without manifesting any pain or difficulty in swallowing. On the following day he enjoyed a very hearty dinner, consisting of beef-steak, bread, tapioca pudding, and some vegetable marrow. On visiting my patient about 3 P.M., I found him sitting up in bed and looking very cheerful, and congratulated his family upon his remarkable improvement. I had left his bedroom scarcely more than a few seconds when I was recalled, and was surprised to find the pillow soaked with blood, which I saw issuing in jets from the right meatus, evidently arterial. Cold was instantly applied to the head, and the aperture was plugged with a dossil of lint, which appeared to control the hæmorrhage. I left, giving orders to continue the cold application, and was under the impression that, although there must have occurred a rupture of the membrana tympani, only some little branch of an artery had given way, and that the bleeding, from the bony encasement in which the vessel was enshrouded, would be readily checked. A few hours afterwards I was hurriedly sent for, having been informed that the child had vomited a large quantity of blood in the interim. My son, who had seen the case, told me that there was at least eight or ten ounces of arterial blood in the basin, and that blood was also mixed with the motions. Ice was ordered, and doses of the tincture of sesquichloride of iron; but evidently without benefit, for, upon seeing him about 11 A.M. on the following day (the 28th), and removing the dossil of lint from the ear, arterial blood began to flow, but not in jets. The child was blanched, and it was therefore too clear that some large vessel had given way, probably the internal carotid, and that the blood had found a passage through the Eustachian tube into the stomach. In the course of the day a return of the vomiting soon brought the scene to a close.

Dr. Marsh, who has had a considerable amount of experience in cases of infantile diseases, informs me that he has never met with a similar case, and he believes it to be rare, and worthy of being placed on record. I am not aware that any amount of sagacity could have prevented an unfavourable termination in this case. The father of the boy, a most intelligent mechanic, who saw that the treatment recommended from time to time was implicitly carried out, was perfectly satisfied that the case was beyond all human control, and that the medical attendants had very diligently performed all that could have been required of them.

Nottingham, Aug. 1870.

CHLORAL HYDRATE IN LABOUR.

BY J. GERSON DA CUNHA, M.R.C.S. ENG.

SINCE the day chloral hydrate arrived at Bombay, I have been in the habit of prescribing it in sundry forms of disease, and altogether I must have given it to between fifty and sixty different cases. It will answer really no purpose to make an array of all my cases, which would simply amount to repeating here the observations already published by others, and perhaps weary the reader. There is, however, one therapeutic use of chloral which I do not find reported in any of the medical periodicals I have read; and therefore I venture to forward the following notes for insertion in THE LANCET.

On July 15th, at 4 A.M., I attended Mrs. R——, aged twenty, a very slender and delicate-looking woman, pregnant with her second child at term. She was seized with labour pains on the previous morning, which returned at long intervals, and were inefficient. She felt much exhausted. Os dilated to the size of a half-crown piece. I ordered a dose of opium, and returned to see her at 10 A.M., at which time she was very restless. Seeing no benefit produced by the opium, I gave her half a drachm of chloral hydrate, to be repeated within two hours in case she could not obtain rest. Soon after taking the dose she fell into a profound sleep, and on awaking, about four hours after, the pains became more active, and she was delivered within ten minutes of a fine healthy child. Both mother and baby are doing well.

About a week after I was called upon to see Mrs. B——, a Parsee lady, in her fourth pregnancy and third labour. Her previous accouchements were all tedious. Her age is twenty-five. Had been in labour a day and a night. Pains lingering. Os dilated to the extent of a florin. From my former experience I gave her half a drachm of chloral, which procured a deep sleep. She awoke six hours afterwards, and within a quarter of an hour gave birth to a male child. She is in excellent health.

On Aug. 1st, at 11 A.M., I was sent for to see N—— J——, aged seventeen, a primipara. She was hysterical; had been in labour thirty hours. Pains had made no progress; they recurred at intervals of thirty and forty minutes. She felt much fatigued, and was dispirited. Os dilated to the size of a florin. I lost no time in giving a dose of chloral. She slept for three hours, and on awaking had two strong pains, which terminated her delivery. Placenta followed about ten minutes after.

These cases I do not pretend to say will establish a rule, but the constancy of result can hardly be the work of chance, although tested in only three cases. The efficiency of the pains, restored by repose obtained through the use of hydrate of chloral better than any other hypnotic I have tried, seems to indicate how important the use of this drug might prove in more experienced hands than mine, while I shall content myself with bearing my testimony in favour of a drug which is still *sub judice*.

There is only one remark more to be made. It is stated by some authorities that the chloral hydrate is a nauseous drug, and that the first dose is almost invariably rejected. I am not acquainted yet with a single instance in which it was rejected; on the contrary, some of my patients liked its taste. I do not know, I am sure, whether individual or climatic circumstances have anything to do in rendering it more palatable; but the fact is not an unimportant one to be here recorded.

Bombay, August 15th, 1870.

DISLOCATION OF THE FEMUR INTO THE OBTURATOR FORAMEN OF FIFTY-FOUR DAYS' STANDING REDUCED BY MANIPULATION.

BY J. WM. MACDONALD, L.R.C.S. E., &c.

J. A——, a boy six years of age, while in the act of throwing a stone, fell backwards upon a heap of rubbish and injured his right hip. He was carried home, and a bone-setter's advice sought, who applied a plaster over the affected joint. Matters, however, growing worse, his parents took the lad to a hospital, and were informed that the case was one of hip-joint disease, and that it would grow worse and worse until the use of the limb would be completely lost.

He was brought to me on May 26th, 1869, seven weeks and five days after the accident. On examination, I found the limb elongated to the extent of an inch and a half. This was ascertained by measuring from the anterior superior

spinous process to the outer ankle. The leg was advanced in front of its fellow; the thigh was much abducted; the toes showed neither eversion nor inversion. The psoas and iliacus muscles formed a tense ridge on the anterior and inner side of the thigh; the space between the anterior superior spinous process of the ilium and the trochanter major was elongated. In view of these symptoms, I was reluctantly compelled to differ from the opinion expressed by the hospital surgeon, and to pronounce the case one of dislocation into the obturator foramen.

Having put the patient thoroughly under the influence of chloroform, I proceeded to reduce the dislocation by slowly flexing and extending the thigh upon the abdomen, while an assistant, by means of a towel, drew the upper part of the thigh outwards. With the third or fourth flexion of the thigh the bone slipped into its place. I tied the legs together at the knees and ankles, and kept the patient in bed for a fortnight. During this period he suffered considerable pain, and was feverish, particularly at night.

As might be expected from the length of time during which the bone had been displaced, the limb remained advanced and abducted; this, however, slowly wore off, and the use of the limb gradually returned. At present (Aug., 1870) he has perfect movement in the joint, the lameness is entirely gone, and he can run and jump with great agility.

Willington, Durham, August, 1870.

A Mirror

OF THE PRACTICE OF

MEDICINE AND SURGERY

IN THE

HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tam aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF PNEUMONIA IN A DRUNKARD, FOLLOWED BY FURIOUS DELIRIUM AND DEATH.

(Under the care of Dr. HARRIS.)

THE two following cases are taken from the notes of Mr. Symonds, house-physician.

The patient on admission stated that he had been ill for four days with pain in the left side and a slight cough. He was a fairly nourished man, forty-nine years of age, with a well-formed chest, the movement of which was slightly impaired on the left side. His tongue was dryish, red, and glazed; pulse 130, weak, and irregular; temperature 103°. He complained of pain on inspiration in the left lateral region of the chest. Good resonance was elicited all over the chest anteriorly, and, with the exception of some slight tubular breathing below the clavicle, probably transmitted, the respiratory sounds were normal. Posteriorly the resonance was good at the left apex, impaired at the spine of the scapula, and below this point absolutely dull. At the angle of the scapula, tubular breathing with very fine crepitation was audible; at the base, the respiratory sounds were very feeble. All over the right back the results of percussion and auscultation were normal. The heart-sounds were very feeble, but normal.

During the night he had a sharp attack of dyspnœa, but, with that exception, slept well. On the following morning his pulse was 136, full and compressible; temperature 101·6°; tongue moist and slightly furred. The sputa were very profuse, semi-purulent, and had a slightly rusty tinge; the breathing was feeble in front, with fine crepitation beneath the left mamma; at the angle of the left scapula bronchial breathing and well-marked bronchophony were heard.

On examination, the urine showed an abundance of vesical epithelium, and about a sixth part of albumen.

At about eleven in the evening he became restless, and remained in a state of wandering delirium until, at five o'clock the next morning, it passed into most furious delirium. His shouts and raving were so violent that he was obliged to be removed to a separate ward. By about half-past eight he became exhausted and quiet, and he died at eight o'clock in the evening.

Mr. Symonds elicited by inquiry, that the patient had been an habitual drunkard, and had indulged freely up to the time of his illness.

At the post-mortem examination Dr. Gee found that the body was well nourished, and not jaundiced. The contents of the cranium were in a natural condition, with the exception of an excess of fluid in the ventricles and sub-arachnoid spaces, which did not exert any pressure on the brain, but had rather the appearance of being the result of atrophy. In front of the right ventricle the pericardium presented a white patch, and there were numerous smaller ones on the right auricle. The texture and size of the heart were natural; in the right cavities and left auricle were large loose black clots; the pulmonary artery was not completely filled with black clot, but there was more than usual in the aorta. The right pleura was adherent by old and loose fibrous tissue; the left contained three-quarters of a pint of turbid fluid, and the whole of the posterior half of its opposed surfaces, the inferior third of the anterior part, and the surfaces between the lobes, were covered with a thick layer of soft white lymph, found under the microscope to consist chiefly of lymph-cells and fibrillated intercellular material. The right lung was somewhat atrophied, but otherwise natural. The upper lobe of the left was collapsed and œdematous in part; the lower lobe was in a state of red hepatisation throughout; there was no softening, and no coagula were found in the pulmonary artery. The spleen was soft, but not enlarged. The kidneys were rather small, the cortex narrow, the capsule not adherent. A few cretaceous mesenteric glands were found. The other organs were healthy.

A CASE OF MALIGNANT SCARLET FEVER.

The day before admission, the patient, a boy thirteen years of age, was taken with sickness, and a medical man who was called in gave him an emetic. He was well nourished; his expression anxious; his breathing laborious; the lips and teeth covered with sordes; the tongue dryish, and covered with dark-brown mucus and fur. The soft palate and tonsils were acutely inflamed, and covered with thick mucus. The skin was dry and pungent, and covered with a livid mottled rash extending to the extremities; temperature 105·4°; the pulse 172. The cardiac sounds were normal; the respiratory sounds were obscured by the rattle in the throat.

The soft palate being incised, a free discharge of pus took place, especially from the right side, and the breathing became much easier. In the afternoon severe diarrhœa, with rapidly increasing prostration, came on; and at eleven o'clock the same night the patient died in a state of complete collapse.

The treatment consisted in the administration of essence of beef, two ounces of brandy containing a minim of opium every hour, and a draught of decoction of bark, with six grains of carbonate of ammonia, and five grains of chlorate of potash, three times a day.

Dr. Gee's report of the post-mortem examination says that there was much purple discoloration of the surface. The soft palate was much thickened, and, on pressure being made, puriform matter escaped from a small incision. A section through the tonsils showed them to be everywhere infiltrated with pus, though it was nowhere collected in a cavity which could be called an abscess. There was no ulceration of any part of the pharynx or soft palate. The solitary and agminated glands at the lower part of the ileum were much swollen, but not ulcerated. The spleen was of natural size, but the Malpighian bodies were rather too distinct. All the other viscera were natural.

ST. GEORGE'S HOSPITAL.

SCARLET FEVER IN A PATIENT SUFFERING FROM ENTERIC FEVER.

(Under the care of Dr. WADHAM.)

FOR the details of the following case we are indebted to Dr. Laking.

Mary A. H——, aged twenty-three, was perfectly well till fourteen days before admission, when her appetite failed, and she was taken with pains in the back. Three days

before admission she began to vomit, and to suffer severe pain in the back, and took to her bed. The bowels were not loose. On the day of admission the bowels were open twice; she had no inclination for food, and had still much pain in the back; the tongue was rather red and coated. She did not sleep during the night. On the following day the bowels were not open; the eyes were injected; the tongue dry and brown, and the teeth marked with sordes; pulse 120; temperature 102·8° F. She complained of abdominal pain. During the second night the bowels were open. She slept well, having taken half a drachm of chloral hydrate. On the following morning the teeth were covered with sordes; the tongue was dry, brown, and fissured; the temperature 104·2° F. On the third night the chloral was again followed by sleep. During the following day the bowels were not open; the general condition remained unaltered. An enema of olive oil was ordered. On the fourth day the tongue was dry, the pulse 96, the temperature 101·2° F., and the teeth still covered with sordes. The bowels were open. On the fifth day the pulse was 116, the temperature 103° F., and the bowels open once. On the sixth day the tip of the tongue was red, and free from fur; the pulse 116, and the temperature 104·6° F. The patient complained of sore-throat. On the seventh day after admission, and the tenth from the date of the vomiting, there were spots, in all respects corresponding to those of enteric fever, visible on the abdomen; the pulse 116, and the temperature 104·4° F. On the following day, the throat being still sore, the chest and abdomen were covered with a scarlatinal rash, which the next day had spread to the bend of the elbows and the thighs.

At the date of our last inquiry, the symptoms remained unaltered; and, judging from the furred and fissured tongue, the character of the motions, the date of the appearance of the rose spots, and the symptoms generally, Dr. Wadham and his house-physician, Dr. Dickinson, entertain no doubt that the patient was suffering from enteric fever at the time that the scarlatinal eruption made its appearance.

GUY'S HOSPITAL.

SEVERE TETANUS, FOLLOWING AN INJURY TO AN ULCER ON THE LEG, TREATED BY CHLORAL HYDRATE; RECOVERY.

(Under the care of Mr. BIRKETT.)

WE lately published notes of two cases of tetanus treated by chloral hydrate (*ante*, p. 293), in one of which recovery took place. We have now to add a record of three more, which have been subjected to similar treatment. It is, of course, far too early to draw any definite conclusion as regards the influence of chloral in promoting recovery from this terrible condition, but there would seem to be no doubt of the drug having greatly mitigated the patients' sufferings in the first two of the cases reported. It is only by the comparison of a large number of instances that we can hope to come to a conclusion respecting the merits of the drug, and it is as a contribution towards such a category that the following cases are published.

The first case, which exhibited all the features of severe tetanus, is remarkable, both on account of the exciting cause of the disease, and the relief following the use of the chloral hydrate. It should be observed that when opium was substituted the symptoms became worse, and that the benefit afforded by the chloral, strongly expressed by the sufferer himself, was very striking.

For the report of the case we are indebted to Mr. Branfoot.

R. S——, aged twenty-six, a potman, was admitted into Lazarus Ward, on June 28th, 1870. He was well formed, and had enjoyed average good health. He had for some years been suffering from an ulcer of the leg, for which he had been under treatment several times, but which had never entirely healed. Ten days before admission he received a kick upon the ulcer. He took little account of the accident at the time, but seven days after he felt slight stiffness of the jaw, with pain and stiffness in the neck. These symptoms increased in severity, and he was admitted into the hospital three days after the first signs of trismus appeared.

On admission he had an anxious expression of countenance; thick speech; the angles of the mouth slightly drawn down; stiffness of the jaw, and difficulty in deglutition; pulse 108, full. Ordered thirty grains of chloral hydrate every four hours.

June 29th.—Angles of mouth much more drawn; pain increased in chest, abdomen, and back; tetanic spasms have set in, and continue at slight intervals; sweats violently; tongue red and swollen; pulse 96; respiration 18.

30th.—Continues to get worse. Ordered in place of the chloral one grain of opium pill every three hours; wine and fluid nourishment, as much as he can get down. Ulcer very unhealthy-looking; poultices applied.

July 1st.—Is very ill; spasms very severe, coming on about every ten minutes, lasting two or three minutes, and causing him to cry out loudly with pain; pulse 88 between the spasms, during which it goes up to 160; respiration 18, abdominal; pupils slightly contracted.

2nd.—Spasms more severe, all the muscles of the trunk affected; slight opisthotonos; jaw fixed; gets fluids down pretty well between the teeth; bowels confined.

4th.—Has continued to get worse. Has now taken the opium regularly during four days. The chloral resumed, one drachm being given as a first dose, followed by fifteen grains every two hours.

5th.—Is a little improved; slept several hours, off and on, during the night; the spasms are still very severe; is unable to pass any urine naturally.

9th.—Has much improved; pulse 86; spasms less frequent, but still very severe; took a little solid food; urine passed naturally; bowels not open. Goes on regularly with the chloral, as he feels the want of it when not kept under its influence.

11th.—Spasms have increased in severity; pulse 104 between the spasms; during spasms goes up to 180 and becomes very small; respiration 28, abdominal. Chloral increased to twenty-five grains every two hours.

13th.—Pains not so great; is very sleepy, and seems very low; does not take nourishment so well; pulse 110, small and compressible; sweats and feels cold.

14th.—Chloral decreased again to fifteen grains every two hours; pulse 88, very soft; had four spasms during the night, which were less severe. Missed several doses of chloral, as he slept so much better.

16th.—Bowels have been opened by turpentine enema for the first time since admission, having previously resisted all attempts.

20th.—Took some solid food to-day. Pain and spasms become more severe when any attempt is made to diminish the doses of chloral.

25th.—Improving slowly. Spasms appear now to attack the diaphragm, coming on as sudden catches of the breath, with pain in the epigastric region. Takes plenty of nourishment.

28th.—Spasms have left him, but he has severe muscular pains occurring in the back and all over the body; spasms are brought on by movements or exposure to slight draught. The chloral is being gradually diminished.

Aug. 6th.—Still has slight jerkings of breath at times; takes food well; greatly improved in health.

8th.—Chloral entirely left off. Ordered quinine.

11th.—Is gaining strength; gets up every day for two or three hours; ulcer looks healthy and is healing up.

GREAT NORTHERN HOSPITAL.

A CASE OF TRAUMATIC TETANUS TREATED BY CHLORAL HYDRATE; RECOVERY.

(Under the care of Mr. SPENCER WATSON.)

THE following case is communicated by Mr. Julian Willis, house-surgeon.

Mary Ann L——, aged forty-one years, married, a stout, florid woman, was admitted on June 22nd, 1870. Three weeks ago, while scrubbing the floor of the hospital, she ran a splinter under the right thumb-nail, where it remained until the 22nd June. She herself removed it in two pieces, its total length being about an inch. An abscess had meanwhile formed, and had caused pain in the thumb and up the arm. On the 13th she first noticed pain in the right side of the jaw, and a continual yawning came on for which she could not account. On the 19th she had

some difficulty in opening her jaws, and found that she could not swallow solids, and since then has been scarcely able to eat anything solid. For the last two or three months she has had indifferent health, and her husband states that she is occasionally liable to fits of excitement of a hysterical character. She has seven children now living, and has miscarried perhaps a dozen times. She menstruates every fortnight.

On admission the jaws could only be separated to the extent of a quarter of an inch by an effort. An attempt to swallow a piece of bread-crumb caused great pain and spasm of the jaws and a general sudden movement of the whole body. At this time there was no distinct opisthotonos; and the sudden movement of the body was rather of a writhing character.

In consultation with Mr. Carr Jackson, she was ordered to take thirty grains of crystallised chloral hydrate every four hours, and the liquid extract of opium was rubbed into the side of the neck and under the jaw. Her diet consisted of beef-tea, eggs beaten up in brandy, bread soaked in milk, and arrowroot. She was to take as much nourishment as possible, and four ounces of brandy in the twenty-four hours.

The chloral hydrate was given subsequently in forty-grain and one-drachm doses, and the object aimed at was to keep the patient in a state of semi-narcotism.

June 23rd.—Pulse 68. She slept several hours during the night, but roused herself several times by biting her tongue. Face flushed; copious perspiration. The thumb is slightly excoriated and tender. She complains of pain up the arm, in the axillary region, the lower part of the posterior triangle of the neck, and the submaxillary region. At all these points there is some tenderness on pressure. She also complains of tenderness in the lumbar and lower dorsal vertebræ.

From the last-mentioned date till July 5th, the chloral was given, with short intermissions, in forty-grain doses every four hours during the day, and drachm doses every six hours during the night.

The pulse increased in rapidity from 96 on the 27th to 120 on the 30th, after which it remained at about 104. The temperature was first noted on the 30th June. It was then 99·4°, and varied from 98⅘° to 100⅘°. The bowels were very costive. Several enemata of castor oil, one containing a drop of croton oil, were given without effect. No satisfactory evacuation was obtained till July 3rd, after the administration of three pills in succession, each containing a drop of croton oil.

For twelve days she remained more or less under the influence of the chloral, often sleeping continuously for eight or ten hours, and even during the day remaining so profoundly unconscious that she was only roused with difficulty.

On July 8th the chloral was discontinued at the suggestion of Dr. Cholmeley, with the view of ascertaining how far the relaxation of the jaws already obtained would become permanent.

On the 9th, however, the patient became so violent both in her language and demeanour that it was necessary to put her into a strait-jacket. She seemed to be in a condition resembling alcoholic intoxication. Chloral was again given in forty-grain doses, with the effect of calming the excitement.

July 10th.—Pulse 96; temperature 101·6°. The chloral has been discontinued for about thirty hours. The temperature on this date was the highest noted during the progress of the case. The jaws had now again become clenched, and could only be opened to the extent of three-quarters of an inch. She bit her tongue severely on one occasion, and slight opisthotonos was noticed occasionally. The urine has been drawn off during the past ten days by the catheter, but now passes naturally.

15th.—Was again violent, but slept soundly after a drachm dose of chloral. Pulse 92; temperature 99·4°.

16th.—Pulse 82; temperature 98°.

18th.—Pulse 92; temperature 99°. The chloral was now entirely discontinued, the jaws remaining relaxed and the patient tranquil. From this date till July 25th the only medicine given was twenty grains of bromide of potassium each night at bedtime.

Recovery was now steadily progressive. On July 30th she was able to eat and drink without difficulty, but as she was suffering from debility and hysterical pains after eating, she was placed under Dr. Cholmeley's care and soon became convalescent.

On August 17th she came to the hospital, and has since several times shown herself, not having experienced any return of the tetanic symptoms.

Remarks.—At first the pulse seemed to be lowered by the action of the chloral, but during the height of the disease, and while the chloral was given in full doses, the pulse was much increased in frequency. It became less frequent during a remission of the chloral, and again less frequent when full doses were given. The evidence, therefore, is so far contradictory, and the explanation is, that the disease was probably at its height during the period between June 29th and July 9th, and that it was less severe at the later periods. The temperature was lower when noted during the full action of the chloral, and rose when it was discontinued; again falling when the chloral was resumed. Thus the highest temperature noted during the time the full doses of chloral were being given was 100·4° F., and it fell as low as 99·4° F. after the drug had been given in full doses for thirteen days. The chloral having been entirely discontinued for two days, the temperature rose to 101⅘°F. On being again given in full doses, the temperature fell to 98° F. The obstinate constipation was a remarkable feature in the case. The very large doses of croton oil required to overcome it, and the great improvement which followed, are also noteworthy.

THE DREADNOUGHT SEAMEN'S HOSPITAL.

A CASE OF IDIOPATHIC TETANUS.

For the particulars of this case we are indebted to Mr. Harry Leach.

Owen T——, aged thirty-seven, was admitted into the Seamen's Hospital on the 25th of August, with symptoms of tetanus in a marked form. There was excessive rigidity, the jaws were tightly closed, speech and respiration were difficult, the face suffused, consciousness complete; pulse 102.

The history of the case indicated little. The attack appeared to have commenced, about five days before admission, with general stiffness of the neck, from no apparent cause. This stiffness gradually extended to the jaws, without any other symptoms. There was no trace of a wound or injury of any kind.

A drachm of the chloral hydrate was given every three hours, from 5 P.M. on the 25th to 3 A.M. on the following day, so that half an ounce was taken. This, with small and oft-repeated quantities of milk and beef-tea, was swallowed with difficulty, though no relaxation of the jaws took place. About 7 A.M. on the day last quoted very decided and severe spasms, affecting the hands and feet, came on, and elicited loud cries. They recurred at frequent intervals; and, as the pupils were now contracted, the chloral was discontinued for a time, and the patient was brought partially under the influence of chloroform whenever there were indications of a return of the spasms. This resulted in a considerable relaxation of the muscles of the jaws, and a good quantity of fluid food was taken. During the afternoon of the same day the chloral was repeated, and chloroform was frequently given. The patient passed very little urine, had no stool, but took fluid food at intervals of about fifteen minutes, and had a very fair amount of quiet and genuine sleep. At 6.30 chloroform was again administered on account of an unusually severe spasm with screams. He took food well a few minutes subsequently, but died very suddenly twenty minutes after in a severe convulsive fit. No post-mortem examination was made.

The progress of this case was more hopeful than usual; and though, as is commonly the case, the result was unsatisfactory, experiences gleaned in this instance tend to indicate that the chloral hydrate is worthy of an extended trial, with inhalation of chloroform, whenever the tetanic spasms threaten. No stimulants were given.

FOOT-AND-MOUTH DISEASE.—We regret to state that this contagious malady has been prevailing extensively in various parts of Ireland, the county of Tipperary more especially. However, we hear that it is decreasing, and if the precautions to prevent its spreading be properly carried out, it may, ere long, be stamped out altogether.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

MEETING AT LIVERPOOL, SEPTEMBER 14TH TO 21ST.

AFTER the lapse of sixteen years, Liverpool has had the honour of receiving the Association for the third time; the first having been in 1837. As was anticipated, in a city which ranks second in population in the British Empire, the meeting has been, without exception, not only the most brilliant, but the most successful and numerous that has occurred in the annals of the Association. Unbounded private hospitality prevailed, and no one with any pretensions as a labourer in the field of science has been overlooked. As usual, many subjects allied to medicine were brought before the different sections, and of these we present a general summary.

Dr. B. W. RICHARDSON read a report on "Methyl Compounds," and in it he stated that among other things that had been discovered by his experiments made during the past year with anæsthetical bodies, was that it was possible to remove pain without removing consciousness, although any act performed by the patient was afterwards forgotten; the nervous centre which produced sensibility was affected and paralysed before those centres which were devoted to consciousness. He thought it very possible they would be able to produce paralysis of sensation throughout the body without destroying consciousness at all.—In the discussion which ensued, Dr. TURNBULL said the subject was an important one, and he believed the author's researches would lead to useful practical results in the preparation of remedies.—Professor HUMPHRY of Cambridge looked forward to nitrate of amyle becoming a cure for those horrible afflictions, lock-jaw and hydrophobia. With reference to the distinction between the locality of consciousness and the locality of sensation, he knew an instance in which a lady, under the influence of ether, was aware that she was having the wrong tooth drawn, although she was unable to give utterance to the fact.

Dr. BROWN-SÉQUARD followed with two papers, "On Apparent Transmission of Abnormal Conditions due to Accidental Causes," and "On Various Alterations of Nutrition due to Nervous Influence." It is impossible to do justice to these in a few words, but in the course of his remarks he said that the series of experiments he had made upon different animals led him to the belief that the right side of the brain was more important for organic life than the left side; and although the two sides of the brain were precisely alike when the animals were born, by greater development of the activity of one side it came to be quite different from the other. He showed also, among other things, that epilepsy induced in the guinea-pig could be transmitted to its offspring.—Professor HUXLEY, the President of the Association, complimented the author upon the value and importance of his papers. He hoped that this meeting, with which his name would be associated hereafter, would be distinguished by the reception of some great facts, and new facts in science, and that hereafter this or that branch of science would be able to look back at this meeting at Liverpool, and date from it as the time from which that branch of science took a new start. He was convinced that the observations made by Dr. Brown-Séquard would be referred to as having proved an introduction to a great and new path in science. The great theoretical problem that they had now to determine was to know what effect artificial modifications and external conditions had had on living organisms—changes which, by being transmitted hereditarily, became the basis of new races. If the Darwinian theory proved to be the true one, it would turn on the evidences they were able to bring forward to show that external conditions were capable of producing changes in living organisms, which, by being transmitted hereditarily, would produce new races. In discussing these great problems, they would be compelled to go back to the remarkable experiments made by Dr. Brown-Séquard, which showed the possibility of transmitting epilepsy hereditarily.

A paper was read "On Air-Pollution from Chemical Works," by Mr. A. E. FLETCHER. During the progress of many manufacturing processes gases or vapours were given off, which, passing into the surrounding air, polluted it, and rendered it more or less unfit for the purposes of animal and vegetable life. If all noxious vapours were to be suppressed by the summary stoppage of the manufacturing processes causing them, we must dispense with the use of a variety of useful substances; indeed, it might be said that every manufacture at its birth was accompanied by some offensive smell or smoke. Still the public were right in requiring that noxious vapours should be reduced to a minimum. The author then referred to the direction which he thought future legislation should take. There was an Alkali Act, but it regulated the alkali manufacture only.—Mr. GOSSAGE anticipated that ere many years, chemical nuisances would be unknown.—Dr. ANGUS SMITH did not doubt that, by careful attention to the mode of investigation pursued by the author, it would be possible to know exactly the proportion of sulphuric or muriatic acid, and probably of other gases, which proceeded from a particular place. The whole question was one, however, requiring great consideration, and it was only by examination that a proper mode of calculation could be arrived at; but there were some results already ascertained, which could be employed in sanitary inquiries.

An interesting report by Mr. R. MCANDREW was read "On the Marine Mollusca of the Gulf of Suez, in February and March, 1869." The total number of species obtained was 818, of which 619 had been identified or described. In the list of named species 355 were not previously recorded as inhabiting the Red Sea. The extraordinary dissimilarity between the fauna of the Red Sea and the Mediterranean, thus confirmed on both sides of the isthmus, showed, the author said, that a barrier between the seas must have existed from a very remote time, and this was not inconsistent with the statement that the two seas were united during the Eocene and Myocene periods.

Papers followed by Dr. WYVILLE THOMSON, "On some of the Echinoderms discovered in the Expedition of H.M.S. *Porcupine*;" and by Dr. W. C. MCINTOSH, a "Preliminary Report on certain Annelids dredged in the Expedition of H.M.S. *Porcupine*."—In the course of the discussion which followed Mr. GWYNN JEFFREYS expressed the hope that in future greater aid would be given by Government to expeditions and explorations having for their object the improvement of scientific knowledge.

Dr. BEDDOE read very interesting papers "On the Anthropology of Lancashire," and "On the Ottoman Turks;" and in the same section Dr. P. M. DUNCAN one, "On the Geological Changes which had occurred since the first traces of man in Europe," which gave for the most part a list of the various disturbances of the earth, so far as Europe is concerned, which are supposed to have taken place since it was first peopled by mankind.

On Friday Dr. COBBOLD made some remarks on the heart of a Chinese dog from Amoy containing a number of parasites, and which often cause these dogs to expire suddenly. This dog died in 1859, after three days of great suffering. There are only three specimens of the dog's heart thus affected preserved in this country; one in Edinburgh, one in the Netley Museum, the present forming the third. From 11,000 to 224,000 filariæ have been found in the blood of some of these dogs.

Dr. COBBOLD also contributed a notice respecting the embryonal development of the hæmatozoon *bilharzia*; likewise on a rare and remarkable parasite from the collection of the Rev. W. Dallinger; it belonged to the Flukes, and was almost unique, for he knew of but one other in the world. It presents three instead of the usual two rows of circlets round the head.

Mr. RAY LANKESTER made some observations on Methæmoglobin which exists in old blood-stains and old blood-clots, and is determined by spectral analysis, possessing somewhat of a medico-legal interest. Also on the action of some gases and vapours on the red blood-corpuscles; those chiefly used were ammonia, carbonic acid, steam, alcohol, chloroform, and boracic acid, and the changes produced on the globules were described.

Professor HUMPHRY read a paper "On the relations of Fins of Fishes to one another," a paper of some interest, but purely of a theoretical nature.

The following papers were read in succession:—"On the Correspondence between the Anterior and Posterior Ex-

tremities, and the Position of the Limbs in the Higher Vertebrata," by Professor FLOWER; "On the Comparison of the Bones and Muscles of the Shoulder and Hip," by Professor HUMPHRY, of Cambridge; and "Comparison of the Thoracic and Pelvic Limbs in Mammalia," by Mr. R. GARNER.—The views of all three varied, and to some extent were opposed to one another, and an animated discussion ensued.—Professor ROLLESTON held that the identity of the nerves had a great deal to do in solving the question of homologies, in opposition to the views of Prof. Humphry; indeed, he said, it explained very much why nervous lesions were followed by hereditary consequences, as Dr. Brown-Séquard had pointed out the day before.—Professor CLELLAND differed from Professor Flower, and thought the processes of development were opposed to his views; and Dr. PYE SMITH believed that more stress should be laid on the skeleton than on the muscles, in considering the question of homologies.—Dr. MCALISTER, on the other hand, supported the muscular views of Mr. Flower; indeed, he said, having worked at the subject for a very long time, he was satisfied that they were the only correct ones. In replying, Professor FLOWER said the principal difference between Professor Humphry and himself was in the interpretation of the surfaces of the pelvis and scapula; and Professor HUMPHRY observed that he had no objection to the nervous element of Professor Rolleston, which, however important, was extremely difficult to make out.

The following papers were read in succession, and then discussed:—"Protoplasm and the Germ Theories," by Dr. G. W. CHILD; "The Controversy on Spontaneous Generation, with new Experiments," by Mr. J. SAMUELSON; and "Remarks on Fermentation and Putrefaction," by Dr. CRACE CALVERT. The great interest of the subject, from its having been so largely dwelt upon in the opening address of Professor Huxley, the President of the Association, caused the large room where these papers were read to be positively crammed. Dr. Child stated that he did not wish to enter upon the endless controversy as to the relation of protoplasm to life; he would, therefore, merely lay before them certain propositions in regard to protoplasm, not as being absolutely out of reach of controversy, but simply as defining what he meant by it. He then proceeded to describe what protoplasm was, and then examined the experimental evidence put forward, and went on to say that the conclusions he had arrived at on the theoretical relation of the question of Abiogenesis were that, it appeared to him, Abiogenesis in some form or another was a necessary consequence of certain other theories which were gaining ground at the present moment, such as the origin of species, and the theory of evolution. It was hardly conceivable that we could theoretically hold that the original simple forms from which the whole animal and vegetable world had been developed had sprung into existence out of the regular order of the evolution of the universe. What was called the germ theory of disease threw an interesting light on the question. Zymotic diseases were now believed to result from the multiplication and reproduction of germs in the blood of the man or animal affected. The matter to be accounted for was, how the germ diseases appeared, disappeared, and afterwards cropped up again in the same district, and at great intervals of time. If the old theories were to be maintained as to the fixity of species, every one of these diseases must have existed somewhere from the beginning—a view that was hardly credible, but still held by some.—Mr. James Samuelson, in his paper, discussed at length the present position of the controversy of Heterogenesis, or the supposed creation of the lowest forms of plants and animals *de novo*. He expressed his belief that those who adopted the theory of the creation of living forms only from germs already in existence would eventually find their view to be correct. He characterised the terms as vague in which Dr. Bastian had described the results of his experiments. From a series of experiments extending over many years, Mr. Samuelson had little doubt that the plant types really spring from atmospheric germs; and, in conclusion, he said that if the believers in spontaneous generation still insisted that their hypothesis had not been refuted, he would retort that their experiments had only proved so far their inability to exclude invisible germs from their infusions.—Dr. Calvert, in his paper, referred to some experiments he had been engaged in of examining the expired air of patients suffering from typhoid, scarlet fever, and small-pox, relatively to the miscroscopic life it revealed. Some of them entirely proved the correctness of Dr. Tyndall's and Mr. Samuelson's statements.—In the discussion which followed, Mr. BENTHAM remarked that the experiments as to the existence or non-existence of germs could not be taken as conclusive.—Dr. HOOKER said that botanists could throw little light on the subject.—Dr. BRAIDWOOD remarked that his similar, but independent, experiments had led him to arrive at the same results as Dr. Samuelson.—Dr. CHILD, in reply, said he could not doubt that the organisms of Samuelson were produced by germs. They had, however, learnt that day that if any form of Abiogenesis could be shown to exist at the present time, it was the production of those perfectly undefined and minute masses of protoplasm which might or might not be produced spontaneously; but, at any rate, nothing beyond that was known at the present time.

A paper "On the Shadows of Genius," was contributed by Mr. W. C. DENDY. In it the brain was considered in a state of unhealth, not disease, when the shadows of excitement or depression had closed around it, and the mighty intellect became "like sweet bells jangled out of tune and harsh." Influenced by these eccentric derangements, the children of genius seemed to form one special genus of their own, which was distinguished by the soubriquet of *Genus irritabile*, and it was of this, the night-side of intellectual nature, that he wrote. The author passed on to refer to the forcing of children, through pride in their precocity; and some of them, martyrs to this early forcing, drooped prematurely, or, exalted to frenzy pitch, themselves extinguished the lamp of life. Byron, he said, indicated in his writings that he considered himself one of these unhappy children. But, on the other hand, the author believed composition might prove a safety-valve; of this Byron again was an illustration when he wrote the "Bride of Abydos." As instances of sensitiveness he cited Alexander Pope, John Keats, William Cowper, Kirke White, Beattie, and others; and among those whose minds were clouded with melancholy he instanced Ariosto, Dante, Voltaire, Cowley, Johnson, &c. The author then considered the effects of overwork and food in the stomach on the brain, and concluded with a caution against over-exercise of the brain and excitement, as having a tendency to cause insanity in an irritable subject.—In the discussion, Dr. P. M. DUNCAN said he totally differed from the author, if he supposed that there was any predisposition of genius in insanity. Statistics of insanity, he said, proved that its greatest increase had been amongst paupers, while there had been a decrease among the better educated classes.—This view, however, was opposed by Dr. BARNARD DAVIES, who said the apparent increase was really due to the workhouse lunatics now being sent to asylums.

A paper "On Left-handedness" was read by Dr. PYE-SMITH, in which he glanced at the various hypotheses which had been advanced from time to time to explain why people in different countries and ages had agreed to use the right hand and not the left. The principal question, he said, was not why some people are left-handed, but why so many were right-handed. The author confessed that he had no solution of his own to urge, but wished to elicit the opinions of others likely to advance some satisfactory explanation. A discussion followed, in which Dr. King, Prof. Rolleston, Dr. Eddison, and others took part, but the only observation that seemed of any value was that early education had very much to do with the matter.

Dr. MOFFATT read a paper "On Geological Systems and Endemic Diseases," showing that the soil has an influence on the composition of the cereal plants grown upon it, and on the diseases to which the inhabitants are subject. He confined his observations to the Carboniferous and the New Red Sandstone formations in the district where he practised. The inhabitants on the first are engaged in mining and agricultural operations, those on the second in agriculture alone. Anæmia with goitre is a very prevalent disease amongst those living on the Carboniferous system, whilst it is almost unknown amongst those residing on the New Red Sandstone; and consumption is also more prevalent amongst the inhabitants of the former. He analysed the wheat grown in the soil over these two geological formations, and found a larger quantity of phosphates and of the oxide of iron in that from the New Red or Cheshire Sandstone than in that from the other. He therefore calculated

that each inhabitant of the Cheshire Sandstone, if he consumes one pound of wheat daily, takes in nearly four grains more per day of the sesquioxide of iron than the inhabitant of the Carboniferous system, who seems, therefore, to be subject to this great liability to anæmia in consequence of the deficiency of iron and phosphates in the food he consumes.—In the discussion which followed, Dr. TURNBULL, of Liverpool, said the author opened up a comparatively new subject which had scarcely yet been touched upon, and it showed that there was a connexion between the geological condition of soils and the health and diseases of the inhabitants living upon them. It showed, too, that this influence might be indirect through the food grown on the soils, and how anæmia and goitre might be produced by deficiency of the agents in wheat described by the author. The statement that consumption was less common in the inhabitants living on the Cheshire Red Sandstone than in those upon the Carboniferous system was of great interest to him, as he had himself, in a work on the subject, directed attention to the inequalities in the distribution of this disease, with a view to their prevention. He (Dr. Turnbull) had pointed out the great mortality from this disease in Liverpool, which led to sanitary improvements which reduced the mortality from phthisis in a remarkable manner. The author had brought another fact to light, and had proved that conditions of soil might indirectly influence the inhabitants through the food grown on it.

A paper of some interest, "On the Antiseptic Treatment of Contagia, as Illustrative of the Germ Theory of Disease," was read by Mr. WM. HOPE, V.C. In the summer of 1867 rinderpest broke out in a herd of some 270 cows on a farm in which he was interested. The disease was pronounced, after inspection by Professor Brown, of the Privy Council, to be incurable, and there was no chance of saving a single animal out of the whole herd. Mr. Hope at once undertook the treatment of one-half of the animals, and formed roadways and pyramids of slaked lime all around the sheds. He then used a quantity of carbolic acid, and combined the double treatment of liquid diet, for the purpose of guarding against the secondary symptoms, with what he might term the chemical treatment of Crookes. The result was he saved every single animal thus treated, whilst all the others died. The author urged that he saved the lives of these animals not by any medical treatment, properly so called, but by an unremitting, ceaseless, chemical onslaught on the germs of the disease. He thought the chemical treatment of rinderpest on so large a scale was one of the most practical proofs of the germ theory of disease that had as yet been obtained, and for this reason communicated the details of a very long paper. He applied the same treatment to scarlet fever, using gargles of carbolic acid, one part to 200 of water; the acid was also freely used round the bed, and the germs of disease attacked in every direction with complete success.—A long discussion ensued. The chairman, Professor FOSTER, said, however valuable might be the experiments of the author, much more would have to be done before they could come to the conclusion that this antiseptic treatment was a proof of the germ theory.—Dr. BAYLIS believed in the germ theory, but it was impossible at the present time to arrive at any definite conclusion respecting it; he regarded the experiments of the author as very valuable, so far as they illustrated the effects of carbolic acid.—Dr. COBBOLD said it was an assumption that germs existed in rinderpest, for they had, as yet, never been seen.

On the same occasion papers were read by Dr. COBBOLD "On some of the more important facts of Succession in relation to any Theory of Continuity"; by Dr. CATON, "Contributions to the Migration Theory"; and "On a New Method of Studying the Capillary Circulation in Mammals," by Professors BURDON-SANDERSON and STRICKER. With regard to the last, the process was shown at the Medical Institution. The capillary circulation could be readily seen in batrachians and fishes, on which curare could be used; but in mammalia it could not be. Hydrate of chloral had been tried with the best effect, and the difficulty of examining the mammalia was now overcome, for the circulation was seen to be quite unaffected under its influence. The omentum of the guinea-pig was the part submitted to examination, and the experiment was quite successful.

Of other interesting subjects, the following are deserving of mention:—"On the Connexion of the Hyoid Arch with the Skull," by Professor FLOWER; "On the Heat generated in the Blood in the process of Arterialisation," by Dr. A. GAMGEE; "On the Cranial Osteology of Polypterus Bichir," by Professor TRAQUAIR. Professor MCALISTER exhibited a Sketch of some varieties of the Pronator Quadratus Muscle, and mentioned that the homologous muscle existed on the tibia and fibula of some crocodilian reptiles.

Dr. KING read a paper "On Blight in Man and the Animal and the Vegetable World." Having defined the terms blight, contagion, and infection, he proceeded to describe the signs by which their presence could be traced, and enumerated the various diseases which were supposed to be contagious or infectious. His principal contention was that disease was the result of a local impurity of the atmosphere, and that whereas a healthy person might be affected if he went to the spot so infected, the party suffering could not convey the disease to another upon his removal to a different locality.

Dr. RICHARDSON read a paper entitled "New Physiological Researches on the Effects of Carbonic Acid." They related to the direct action of carbonic acid on animal and vegetable fluids, and they were interesting equally to the zoologist and botanist, as to the anatomist. The author had studied the effects of carbonic acid on albumen, serum of the blood, blood itself, bronchial secretion, and other organic fluids. When the serum of blood was treated with carbonic acid under pressure and gentle warmth, the colloidal part was separated; but when the blood with the fibrine removed from it was treated, there was no direct separation, the blood-corpuscles seeming for a time to engage the gas by condensation of it. But blood containing fibrine, and holding fluid by tribasic phosphate of soda, was at once coagulated by the acid. The bronchial secretion was thickened by carbonic acid, and a tenacious fluid was obtained, resembling the secretion which occurred in asthma and bronchitis; while secretions on serous surfaces were thickened and rendered adhesive. After detailing many other facts, the author concluded by showing what bearing this subject had of a practical kind.

The following papers were read, relating to the subject of sewage:—"Report of Committee on Utilisation of Sewage," by Mr. R. B. GRANTHAM, C.E.; "On the extent to which existing Works and Practice militate against the profitable Utilisation of Sewage," by Mr. BAILEY DENTON; "On the Sewage of Liverpool and its Neighbourhood," by Mr. J. N. SHOOLBRED, C.E.; "On Sewers in Running Sand," by Messrs. READE and GOODISON, C.E.; "On Utilisation of Sewage with special reference to the Phosphate Process," by Mr. DAVID FORBES.

There were numerous other papers of considerable interest, but we conclude by mentioning only the following:—"Statistics on Tobacco, its Use and Abuses," by Mr. R. WILKINSON; "Intemperance, purely with reference to Liverpool," by Rev. JOHN JONES; "On the relations of *Penicillium*, *Torula*, and *Bacterium*," by Professor HUXLEY, President of the Association; "On the Anatomy of the Intellect," by Dr. WM. HITCHMAN; "On the use of Opium amongst the Chinese," by Dr. G. THIN; "On the Physical Relations of Consciousness and the seat of Sensation—a Theory proposed," by Professor CLELLAND; and "Scientific Value of Physical Beauty," by Mr. F. T. MOTT.

The concluding meeting of the Association was held on Wednesday, 21st September, when it was announced that the next place of meeting would be Edinburgh.

WAR NOTES.

IF we ransack history, we shall find nothing so marvellous as the events which are taking place before our eyes. The Prussians have overrun France, and defeated her armies on every occasion that they have met. Like a large wedge, driven with a steady force that was irresistible, the Prussians have penetrated the French army, and split it asunder. One large fragment was utterly routed at Sedan, and a garrison of 80,000 capitulated; and the other portion has been hemmed in on all sides, and shut up in the garrison of Metz. Outnumbered, outgeneraled, and utterly undone, France has indeed been made to bite the dust: without, military disaster; and within, anarchy and

the fear of rebellion and civil war. With the defeat of MacMahon the already tottering empire fell; and Bazaine, confronting the tremendous blow which this news must have given him, could only fall back upon his indomitable resolution to hold out. Strasbourg, with its cathedral and famous clock—that wonderful piece, or rather several pieces, of mechanism, which, besides the ordinary office of a clock, indicates the fixed and movable feasts, the eclipses of the sun and moon, and what not—is, with half a dozen other places, undergoing siege. Paris, with a civil population of upwards of a million and a half, surrounded by an enormous army of determined, disciplined, victorious troops, is depending for her defence upon 300,000 raw and ill-disciplined, if brave and devoted, soldiers. All this has not, of course, been purchased without entailing terrible losses and sacrifices on the German Fatherland. Nothing illustrates better the unstable nature of our proposed reforms than the history of this war. The French organisation has utterly broken down, and yet we have adopted the principle of "centralisation," which is certainly not that of the Prussian system. Some very knowing and practical men have been prophesying that a rage for "decentralisation" must ensue, if our military system is ever to work well, and they think they see the symptoms of it already impending. Our Volunteer medical officers have been bestirring themselves with the view of establishing some well-defined system of organisation; and the Government may be disposed to aid them, seeing that Russia has already appointed a Commission at St. Petersburg to create a medical reserve force of 1000 surgeons.

The success of the besiegers of Paris will turn on the question of food, fuel, and cover. The season is advanced; there is already a marked difference between the temperature by day and night, and Prussia is preparing for the vicissitudes of a winter campaign by ordering 100,000 furs, which will eventually have to be paid for by the French. The besiegers will probably have no difficulty in utilising the houses around Paris for shelter.

To artillerists, the wonder has been how the Germans have succeeded in supplying and distributing sufficient ammunition to fight three great actions, with breech-loading weapons, in less than six days; but to military surgeons, the marvel has been how such enormous forces have hitherto kept the field with so little sickness, especially considering the marches they have made, and the absence of tents. In the English army during the Peninsular war, the sickness varied from 10 or 12 to 20 or even 25 per cent. of the force, and more recent experience has not shown any material difference in this respect. Of course the Prussians have not had to contend with such exceptionally inimical climates or seasons as those of the Walcheren or Crimean expeditions, nor have they had to campaign in uncultivated countries, such as Poland, Algeria, and Hungary; but one is amazed that dysentery and fever have not been far more prevalent than they have been. As far as we can learn, the sickness that has as yet prevailed has existed rather among the French than the Germans. Small-pox, which was prevalent in France at the outbreak of hostilities, has proved very virulent among the French prisoners at Madgebourg and Wittenberg. Cholera, which still exists in South Russia and Persia, has as yet failed to travel as far as the scene of contest. Cattle plague threatens seriously to embarrass the Prussian Commissariat, but neither typhus nor any other disease has attained such proportions as to justify the employment of the term epidemic in regard to them. Herr Wickede has estimated that the German losses up to the present time may be summed up as 60,000 killed and wounded, 20,000 or 30,000 sick, and 1000 prisoners. The losses among the officers are thrice as heavy as among the men. At Gravelotte, on the 18th of August, the number of troops in action was probably not more than half the force engaged at Sadowa, but the German loss was more than double that in the latter battle. All that the Prussians have done has tended to indicate their caution and prescience—nothing has been left to chance. Having put their hands to the plough, they do not look back. A number of chemists have already been despatched to France to disinfect systematically the hospitals and battle fields; how this is to be effected, however, we do not exactly see.

The Germans appear to be a more hardy race than their opponents. They can eat black bread, the issue of which had to be prohibited among the French prisoners on account of their inability to digest it. *En passant*, we may state that the Germans have practically managed to solve for themselves the difficult problem of an economical and compressed ration for field purposes. Their soldiers, we read, on several occasions during forced marches consumed a diet composed of mixed peas and meat—a highly nitrogenous but not very digestible compound. The Rhine wines were always consumed where they could be procured, and we do not hear of a rum or spirit ration being issued, as in our army. The craving for tobacco exhibited by the troops, and their almost universal use of it, corroborate the opinion entertained by practical men that the consumption of tobacco is of real value to men undergoing the hardships of physical exertion incidental to a campaign. This will be a sad blow to the Anti-Tobacco Society and Dean Close.

The much-vaunted powers of the chassepot and mitrailleuse have not availed the French much. The improvements of modern warfare require the possession of intelligence and self-reliance on the part of the soldier; and it is quite possible that breech-loading weapons, which run away with a good deal of ammunition, are not so useful in the hands of an impulsive, excitable Frenchman, as in those of a steady, phlegmatic German. Be this as it may, none of our correspondents have remarked upon the exceptionally severe character of the wounds made by the chassepot bullet. The extensive employment of artillery, however, has led to great carnage, and to the occurrence of a vast number of cases of very ugly and formidable injuries. Most of the military hospitals are said to contain singular wounds and extraordinary cases, about which we shall know more fully when the surgical and medical history of the present war comes to be written. It is very creditable to the medical services, considering the enormous amount of work they have had upon their hands, and the disposition which this induces to adopt the readiest and most rapidly executed operations, that they have been guided by the principles of conservative surgery. Where men in former wars lost their limbs, they now preserve them with a stiff joint at the worst. Abused as England will no doubt be by both belligerents, for the neutral course our Government has adopted, it ought to be a matter of some congratulation to us to know that our sympathies have been alive to the sufferings of the wounded, and that money and *matériel* have been forthcoming in profusion for their relief. Numbers of surgeons and nurses have hurried from this country to render what services they could in the cause of humanity. For one thing we cannot be too thankful—namely, chloroform. It is almost impossible to estimate the relief to suffering and the saving of life effected by this agent alone.

IRISH AID FOR THE WOUNDED.—The citizens of Dublin, and of almost all the provincial towns in Ireland, of all sections and denominations, have taken up warmly this most humane object—the relief of the wounded. In some places it must be confessed that the sympathies strongly incline to one or other of the contending parties in the present unhappy conflict; but the result is the same. The International Society in Aid of the Wounded of both Armies have appointed Sir Edward Burroughs in Dublin to receive contributions, and already upwards of £2500 have been collected in that city, and transmitted by him to the committee in London. There are also several committees appointed to assist the French wounded; and a committee formed by Germans in Dublin, who have set on foot collections of money and medical comforts, and necessaries for the sick and wounded of their countrymen, have been able to send to Berlin a considerable sum of money as well as a large supply of articles required for the efficient treatment and alleviation of the sufferings of the sick. Sermons also have been preached for the benefit of the same good cause in St. Patrick's Cathedral, and other churches in Ireland; and we understand an Irish ambulance is at present being constructed in Dublin, and is expected to leave that city fully organised next week for the seat of war.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 24, 1870.

THE meeting of the British Association at Liverpool has in many respects been a conspicuous success, and in none more so than in the charm cast over it by the unbounded kindness and hospitality of the inhabitants, who have vied with one another in doing all that could promote the comfort and convenience of their visitors. The Sections have been well supplied with papers; and although the majority of these have been distinctly technical in their character, and some have been no more than the scarcely veiled advertisements of spirited tradesmen, yet there has, on the whole, been no lack of topics of public interest. The chief among these, perhaps, would be the lecture delivered by Professor TYNDALL upon the Scientific Uses of the Imagination; and this, since it brought him to the very border of a medical question, we feel ourselves called upon to discuss.

It was well said by ANDREW FULLER that, if a man had somewhat to preach about, the word "Mesopotamia" would make him as good a text as any that could be found in the Bible. Now Professor TYNDALL'S object was to preach about germs, and he proceeded to accomplish it somewhat in the following manner. He first set forth that it was a wholesome use of the imagination to apply our knowledge of aërial sound-waves to the solution of the question—What is the cause of the phenomena of light? And he then proceeded to draw one of those charming and graphic word-pictures for which he is so famous, showing the rippling of the etherial light-waves against molecules in the atmosphere, the greater proportionate reflection of the shorter wave of blue, and the consequent preponderance of blue rays in the light reflected to us from the sky, and of red and yellow rays in the light coming unreflected from the sun. Next, lest this picture should be too vivid, and lest the description of molecular rocks, against which the billows of ether surge and dash, should convey to the audience an exaggerated notion of the size of molecules, it was shown that the particles thrown down from an alcoholic solution of resin by water, and which produce a blue tint analogous to that of the sky, may be so small as to be undiscoverable by the microscope; and also that, if a tube filled by invisible sulphurous acid gas be placed in the beam of the electric lamp, the molecules of sulphur and oxygen would be "shaken apart" by the waves of light, and the sulphur rendered visible as a fine blue cloud, which becomes more and more white as the particles composing it are increased by molecular aggregation. Now the aim of all this was to seek to show that the air is filled by an infinite multitude of suspended particles, so minute that they do not produce darkness, and that these particles may be germs! Professor TYNDALL does not say that they are germs, but, by the aid of a special disclaimer, he prevented his audience from forgetting that they might be. We should be very loth to accuse him of disingenuousness, but we are unable entirely to acquit him of special pleading. We feel that his lecture was a very skilful attempt to familiarise the public mind with the existence of atmospheric "particles," and to lead up to and encourage, without absolutely expressing, the idea that germs are particles, and that particles may be germs.

Now, when we endeavour to apply to this question such an imagination as we have been endowed with, it does not appear difficult to conceive that all the phenomena of atmospheric dispersion and reflection of light may be due, not to "particles" (i. e., foreign bodies suspended in the air), but to the constituent molecules of the air itself, and of the aqueous vapour mixed with it. To our minds it is quite inconceivable that the air is densely charged with foreign particles; and quite conceivable that the absolute molecules of which it is composed, the molecules of its oxygen and nitrogen, and of the oxygen and hydrogen of its watery vapour, may do all that Professor TYNDALL assigns to the particles that he has imagined. The very assumption underlying his sulphur-cloud experiment—namely, that the molecules of sulphur and oxygen are large enough to be "shaken asunder" by light,—would support the view that similar molecules, especially in a much deeper layer, would produce at their limiting surfaces all the phenomena of reflection. We see nothing in the Professor's argument to show that unpolluted air may not be absolutely pure; and we should have little difficulty in explaining some of the atmospheric phenomena of which he speaks by variations in the quantity of watery vapour held in suspension, and by differences in the size of the particles of which this vapour is composed. If, indeed, the Professor means watery vapour when he speaks of particles, we should hardly differ from him; but when he talks about "sky dust" that may be "germs" which produces the cærulean blue, and the orange tints of sunset, and the whole of which, within the boundaries of the known universe, might be packed into "a gentleman's portmanteau, or, perhaps, even his cigar case," we feel that the successor of FARADAY is walking dangerously near to the confines of nonsense, and we fear that he may some day overstep those confines, and be engulfed in the abyss below.

Forsaking actual particles and possible germs, the last part of the lecture was devoted to questions bordering upon theology; and the Professor expressed, with droll *naïveté*, his conviction that the "flower" of the English clergy are men of like passions with their social peers, having a relish for Veracity (with a capital V), and deterred from accepting the revelations of science by their fear of error rather than by their disregard for truth. The clergy present on the occasion must, we should think, have been amused as well as startled. But it is the privilege of their order to hold forth on one day out of every seven, and to stand in no fear of an answer. Perhaps it may serve them as a wholesome discipline to be now and then themselves made hearers, and to receive from another the sort of scant mercy which it is so often their province to administer. We feel that, although they may command a certain amount of our sympathy, they in no way stand in need of our help; and

we leave to them the task of criticising that portion of the most recent official utterance of science in which germs and particles had no place.

"THE question of the permanent construction of a Medical Council of Education is one of grave importance. It is intimately connected with other questions and interests entirely extra-professional; and it cannot, therefore, be properly dealt with by any hasty or one-sided legislation." This is the last paragraph of the letter in which Drs. PAGET, STOKES, ACLAND, RUMSEY, and EMBLETON intimated to the Editor of *The Times*, and through him to the public, the reasons which induced them to resign their connexion with the Executive of the British Medical Association. We have already said that, in our opinion, this step was a serious one, both for the Medical Council and the British Medical Association. The Council of the British Medical Association could ill afford such a defection from its ranks. And the General Medical Council was weak and unpopular enough before this step was taken. It had little hold on the respect of the profession. Not that it had not done some good work; but it had not done it thoroughly, partly because the Medical Act did not give it the power, but mainly because it was so constituted as not to like to use the power it had. It recommended, and did not order; and if bodies disregarded its recommendations, it did not push them very hard. It never went the length of reporting a recalcitrant body to the Privy Council. It visited examinations; but the visits were courteous rather than critical, and the reports which resulted from them were "to the faults a little blind, and to the virtues very kind." If evidence came before the Council that somehow or other unfit men were getting into the profession, the guilty portal was not singled out and held up to proper censure; but was practically hidden in the confusion of two or three of the nineteen bodies, or of all of them put together. These bodies naturally considered each other. And even Crown members had to mix consideration with criticism. It was not natural that a body acting so tenderly to itself and so constituted should excite much admiration outside, especially after the way in which it resisted every attempt to make it representative more of the profession at large, and less of its mere corporations. The step taken by the above-named members of the Medical Council is not calculated to make the Council more respected by the profession.

Our immediate object, however, is not to lament over a step which is no business of ours, except as regards its significance; but to draw attention a little more particularly to the closing sentence of the letter to *The Times* quoted above. The sentence as it stands is a very good one, and one which goes far to express our views of the great principles which must regulate those who would satisfactorily solve the difficulty of the permanent construction of the Medical Council. It also suggests questions as to the consistency of the gentlemen who wrote the letter, and as to the justness of the blame which they attach to their late colleagues of the British Medical Association, with whom until September 1st they had acted.

Let us look at one or two meanings of this language. We are told that "the question of the permanent construction of the Medical Council is one of grave importance." It would be interesting to know when Dr. PAGET and his colleagues made this discovery. We have never ceased to point out that the reconstruction of the General Medical Council is the very essence of all sound medical reform; and that to profess to amend the Act of 1858 by depriving all the licensing bodies of their individual power to license, and yet leave them, undisturbed, to constitute the future Medical Council, was in a high degree unreasonable. Dr. PAGET and his respected colleagues are in this case. They were asked by the Government to express their views as to the amendment of the Medical Act. They were expressly given to understand that the Government wished them to go thoroughly into the question, and not to content themselves with a few points on which they had already given an opinion. They held a special meeting of the Council for the doing of this very duty—for the consideration of the thorough amendment of the Medical Act. Yet not one word escaped them as to the construction of the Medical Council. Deputations had waited on them on the subject. Members of the Council had brought the matter under their notice. They recommend the substitution of conjoint licensing boards for the various individual licensing boards. But their suggestions for the framing of an amended Medical Bill did not contain one word in reference to the reconstruction of the Medical Council. Yet a few months later Dr. PAGET and his colleagues tell us that the permanent construction of the Council is one of grave importance. Surely we are entitled to ask Dr. PAGET this question: If the permanent construction of the Council is a matter of such grave importance, why did he and his colleagues not consider it when they were asked by the Government to go over the whole ground of the amendment of the Medical Act? If the reply be that the gravity of the question has only lately dawned upon them, we would ask this further question: Why have they set themselves in such determined antagonism to those who have insisted on the settlement of this question at this time as being conspicuously the time for doing it? It will not do to say that the question is too grave for hasty legislation. It has been before the Medical Council for years. But so intense has been the self-complacency of that body and its intention to remain in its present form, that it has never considered the question of reconstruction, or, as Dr. PAGET calls it, of permanent construction. The charge of hastiness may do for the readers of *The Times* and other non-professional organs; but it is entirely untenable to medical readers. Dr. PAGET and his colleagues have condemned themselves. They have admitted the grave importance of a question which they have neglected and ignored; and, forsooth, they refuse to act further with those who have all along seen the gravity of the question, and endeavour, before the public, to fasten the charge of haste upon those who have been asking them for years to include this question in any amendment of the Medical Act. We wonder what year of this century would approve itself to the members of the present Medical Council for fixing its "permanent construction." We must, however, be thankful for an implied admission, in these very

words, that the present construction is not fit to be permanent.

Dr. PAGET and his colleagues are a little more forcible when they say that the question of the permanent construction of the Medical Council involves questions entirely extra-professional. The British Medical Association has certainly harped too monotonously on the one string of direct representation, as if this would make the Council perfect. It would not. The Council needs to be entirely reconstructed, mainly in the interests of the public. The profession wants to be represented in it, first in order to promote the interests of the public, and secondly to secure fair play to itself. But even here the letter of these gentlemen is calculated—unintentionally of course—to mislead the public, who will gather from it that the present Medical Council is consumed with concern for the public, an impression which has not been made on those who have most narrowly watched its proceedings.

ON the eve of another session at the Medical Schools, we consider it a duty to remind those who are responsible for the teaching arrangements in our metropolitan institutions, how weak, comparatively speaking, the system of clinical instruction is at present, and how urgent is the necessity for some decided improvement in this essential branch of professional education. In our Address to Students a fortnight ago, special emphasis was laid on the advisability of increasing the practical at the expense of the theoretical aspect of examinations, and so to send out to the world men apt and ready in action as well as in thought. There can be no doubt, indeed, that the tendency of teaching in the London schools, and the tendency too of the examining boards, has been hitherto to make peripatetic medical dictionaries rather than quick, cool, and astute practitioners. But, as clinical teaching is now conducted, the latter result (at least in London) is impossible; for, according to our knowledge and belief, in not more than one or two schools is any systematic plan of instruction by the bedside attempted at all. Those of the students who are fortunate enough in some instances, or industrious enough in others, to obtain appointments as dressers and clinical clerks, may, if superlatively diligent, gain some knowledge as to the practical part of their profession. But, in large schools, all cannot be dressers and clinical clerks; and it is absurd to suppose that, from the hospital practice of the student as now obtains in most institutions, much real good can follow. Certain hours are named for the visits of the physicians and surgeons. Some of these attend punctually, some the reverse; and, on their arrival, a general rush is made into the wards. The industrious and energetic (the number of which in any and every band of students is small) elbow their way to the bedside, and may or may not be asked questions as to the disease of the patient. The industrious and diffident are scarcely within seeing or hearing distance, and the idle skirmish airily about on the outskirts of the main body, talk nonsense to the nurses as opportunity offers, and pleasantly beguile the time by minor practical jokes. And hence arises, among other things, a great deal of the distrust with which the students of a school are regarded by the administrative staff of the hospitals to which they are temporarily accredited. But with whom does the fault lie? Certainly not with the students themselves, the most of whom cannot, under present circumstances, gain much real information in the ordinary professional round of visits, however well disposed, quiet, or industrious they may be. But, admitting that diligent students will always, somehow or other, get information, should it not be the aim and object of teaching to make opportunities of gaining knowledge properly and systematically accessible to all, so that all may have the means fairly thrown in their way, and, failing the utilisation of those means, be given to understand that the drones shall not be permitted to obstruct the working bees of the community? It is, according to our own notions of the matter, perfectly competent for any hospital physician or surgeon to compel the attention of each and every student visiting the wards, as to asking and answering categorical questions about the cases treated, and to eliminate from the visiting clique all pupils who fail to comply with any conditions of this kind that he may choose to impose upon them. But, as it is right and proper to consider patient as well as pupil, the latter should learn, and have good opportunities of learning, the use of all medical instruments before he commences practical study in the wards. By medical instruments we mean the stethoscope, clinical thermometer, laryngoscope, ophthalmoscope, &c. No student should commence the auscultation of a presumably diseased chest unless he has first ascertained what may and should be heard in the physical examination of a presumably healthy individual. Many students are called upon to diagnose vomicæ, mucous râles, and moist crepitation before they have any practical idea about healthy vesicular respiration. And how is it possible to tell with any precision the nature and extent of cardiac mischief if the auscultator has not familiarised himself with the normal sounds of the heart? Here we would suggest that in clinical teaching types of the so-called "common" diseases to which flesh is heir should be chosen for the instruction of a class of students, rather than a case very curious of its kind, but so rare that its particulars will be comparatively of little use to the future general practitioner. Teachers as well as pupils should always remember the old proverb, "Mony a mickle makes a muckle," and apply it to clinical observation. For, be the student ever so studious in his study, and ever so regular in his attendance at the class-room, he makes but a sorry member of the healing art if those apparently little things comprised in the practical tuition of eye, ear, and hand are neglected. Except in rare instances, opportunities for the acquisition of such knowledge do not occur after the completion of hospital practice; and we may remind those who are entering the profession that in these days no one can afford to waste a year of practical study with impunity. Hence it is of paramount importance that hospital teachers should, in the interests of their pupils, economise time by systematising instruction, so that none may say, "I could not learn for lack of opportunity."

WE have lately perused a copy of a Report made by the Chief Commissioner of Police to the Board of Admiralty on the operation of the Contagious Diseases Acts in the Plymouth and Devonport and other districts of England. So long as the opponents of legislative interference take their stand upon theoretical and sentimental considerations, they will always be able to advance objections which may appear plausible enough to the public. Once let the public be convinced, however, of the practicability of a scheme, and of its success when tried, and opposition will cease.

An experiment is being made upon a limited scale, which is very disadvantageous to the efficient working of the Acts themselves; but still the results of that experiment are very striking, and it is not easy to gainsay facts.

Colonel HENDERSON reports that 3016 names remain on the register out of a total of 7766 women registered in the several districts included within the provisions of the Contagious Diseases Acts since they were put in operation until March, 1870. The returns also show a decrease by one-half of the number of men in hospital for contagious disease. In order to show the beneficial operation of the Acts, Colonel HENDERSON directs particular attention to the effects produced at Plymouth. There has been, from year to year, a steady and increasing diminution in the number of brothels and prostitutes at that station.

When the Act of 1864 was first put in operation, over three hundred of the youngest of these unfortunates left the neighbourhood. The character of whole streets and districts has entirely changed, and where there were previously 132 public women there are at present only 2. Clandestine prostitution, particularly amongst married women and servant girls, has much diminished, owing in all probability to the fear of their being brought under the operation of the Acts; and very great improvement is noticeable in the persons, clothing, and homes of the common women, as regards cleanliness and order. Such are the physical results of this much-abused legislation; and the moral effects have not been less marked. More than five hundred young girls found in houses of ill-fame left the district and returned to their friends on being spoken to by the police. In the Plymouth district nearly 900 women entered homes, or were restored to their friends, and 161 married; and the results at other stations are similar, though perhaps less remarkable. At Chatham the decrease in the amount of disease amongst the women has been very striking. In 1868 it was 70 per cent., while in 1870 it was at the rate of only 6 per cent.

The complaints made by the Secretary of some nameless Society for the rescue of fallen women to the sitting magistrate at Greenwich, on Tuesday last, are but the echo of complaints brought against the Contagious Diseases Act at Devonport and Portsmouth, and with as little foundation. The "intimidation" by the police consists simply in an official visit and notice to the prostitute that she can either submit voluntarily to periodical medical examination, or be summoned before a magistrate to show why she should not be so examined. We need hardly say that the former simple course is usually followed. The complaint with respect to the enforced attendance of women who fail to attend for examination is directed against a simple enforcement of a magistrate's order, such as every constable is in the habit of carrying out. Mr. PATTESON, the magistrate, remarked that he would take care to investigate any case of undue police interference if brought before him; but we will venture to predict that no such case will be attempted to be proved, any more than the "gross outrage" which Prof. NEWMAN wrote about, but has never ventured to bring to the crucial test. We rejoice to find the magistrate on this occasion boldly stating that, as regarded the Act itself, in reference to the working of which he received numberless letters from individuals, he desired it to be publicly stated that in that district, but more particularly at Woolwich, it had been of great benefit, and he considered it one of the most salutary measures the Legislature had ever passed.

Medical Annotations.

"Ne quid nimis."

MR. BICKERSTETH'S SOIRÉE.

THE success of Mr. Bickersteth's *soirée* at Liverpool, to which we made reference last week, surpassed all expectation. The Philharmonic Hall, in which it was given, is a very fine room, with an organ at one end, surrounded by a gallery divided into private boxes, and lighted with marvellously good effect by a line of jets running round near the ceiling, after the fashion of the lighting at the Crystal Palace. Members of the Local Committee took departments in superintending the necessary fittings and decorations; and although Professor Tyndall's audience only vacated the room twenty-four hours before the time named in the invitations, yet by working all night with an adequate staff, everything was ready in time, and arranged in such a manner as to call forth the warmest encomiums from the guests. The decorations were extremely beautiful, the objects of art and of interest that were exhibited were varied and numerous, and the refreshment department was beyond all praise. For the benefit of those who may engage in similar undertakings, it may be mentioned that the giver of the feast pursued a line of conduct diametrically opposed to that of the man who had some so-called sherry that he did not drink himself, but kept for "his friends." Mr. Bickersteth would not contract for the wine supplied at the refreshment table; and so spared his guests those evil consequences to palate, head, and digestion that wine that is contracted for only too often produces. Up to the very day, it was feared that Mr. Bickersteth, who was suffering from the effects of a poisoned wound, would be unable to attend; but the appointed time found him at his post, and, although with his right arm in a sling, not looking as if he would be injured by the effort. The guests appeared thoroughly to appreciate the great efforts made for their reception; and there was a certain tone of brightness and enjoyment about the whole that differed in the most wonderful way from many of the dismal entertainments that are called by the same name.

THE GUILDFORD FEVER OUTBREAK.

A MEETING of the Guildford Local Board was held last week, at which Dr. Morton, the medical officer of health, reported upon the outbreak of typhoid fever to which we have already made reference. Dr. Morton agrees with Mr. Taylor in attributing the probability of its causation to the supply of impure water. It appears that both the high and low services of the town are supplied from one and the

same well, but that the high service is pumped by steam from the well during eleven hours in the day, at a rate of from 12000 to 15000 gallons per hour, while the low service is supplied by the water-wheel during thirteen hours of the night, at a rate of from 4000 to 5000 gallons per hour. Now in 1868 the result of experiments went to show that this well was only capable of supplying about 6000 gallons per hour from the springs, and that any quantity in excess of that yield must come from the river by percolation. The inference is that, to the extent probably of half the quantity pumped in the day, the high service was distributing, not pure spring, but exceedingly doubtful river, water.

At Dr. Morton's suggestion the Board have now caused the day pressure on the well to be reduced to the point of spring-water yield. The upshot of the discussion at the board meeting was simply this:—"We don't believe the water-supply has had anything to do with the outbreak of fever; but, for all that, a new well is wanted, and a new well we will have."

It is immaterial what the peculiar views of the Board may be upon the question of disease causation, so long as they admit the necessity of an alteration in the existing state of things, and this they do by the determination they have now come to.

PATHOLOGY OF RENAL DISEASE IN SCARLET FEVER.

THAT a process of desquamation of the skin occurs about the sixth or seventh week after an attack of scarlet fever, especially in severe cases, is a fact that is sufficiently familiar to every practitioner. With its completion, albuminuria and dropsy commonly disappear, and the patient recovers from the attack. The consideration of the frequency of this relation has led Dr. Baginsky to endeavour, experimentally, to demonstrate whether a still more intimate relation does not exist between cutaneous and renal diseases than is at present admitted. With this object in view, he suppressed the cutaneous functions in rabbits by coating them with impervious varnishes of oil, gum, and resins, or by producing violent inflammation in the skin, as by the application of croton oil and turpentine. The actual cautery was not employed, as it had already been found by Wertheim to produce easily inflammation of the kidneys with hæmorrhage. He employed large and strong rabbits; and took the important precaution of only acting on a portion of the skin at one time, since the temperature rapidly falls if the whole skin be acted on. Thirteen rabbits were experimented on; of which four died within twenty-four hours, and two after forty hours. Albuminuria occurred in four of these cases; whilst in one no urine was secreted. They all died with slow respiration, cold extremities, and in convulsions. Four other rabbits died from the sixth to the ninth day, and one on the third. Four of them presented albuminuria. Two lived on: one to the fifteenth, the other to the nineteenth, day; and the urine of both contained albumen during the early period after the operation. On post-mortem examination, the animals that died within the first forty hours presented very vascular kidneys, of a dark-red colour; those that died from the third to the ninth day had also very vascular kidneys, and microscopic examination of the tortuous canals showed the epithelium to be cloudy and enlarged. The glomeruli were gorged with blood. On the other hand, the epithelium of the Malpighian corpuscles and of the straight tubes was not materially altered. The kidneys of the animals that died after this period presented similar appearances, except that the glomeruli were anæmic, whilst the cortical capillaries were strongly injected. The cortex was increased in breadth, and of a smutty yellow colour, which was apparently due to the tubes being filled with a partly finely and partly coarsely granular mass, in which were contained the nuclei of the distorted epithelial cells. Hence he concludes that "extensive inflammatory affections of the skin lead directly to disease of the kidneys; this disease consisting, in the first instance, of active hyperæmia, but subsequently of parenchymatous and interstitial pathological alterations." The important deduction that may be drawn from this is, that the pathological affections occurring in the kidney after scarlet fever are not to be regarded as produced by the direct action of a scarlatinal poison, but as the secondary results of the scarlatinal dermatitis; and this, again, leads to the important therapeutical rule that the action of the skin in scarlet fever should receive careful attention.

A PROVIDENT ASSOCIATION.

WE have from Devonport a report of a meeting of the medical profession of that town held at the Royal Albert Hospital on September 6th, at which the following resolution was unanimously adopted:—

"That the principle of admitting members to a provident club without any limitation as to means or position is improper, and is likely to embrace many persons well able to pay for medical attendance. This meeting, having considered the rules of the Professional and Commercial Provident Association now submitted to it, considers it is open to the above objection, and declines in any way to co-operate with it."

On inquiry, we find that the "Professional and Commercial Provident Association" has its offices at 165, Strand, and that its prospectus of rules has no name whatever attached to it save that of the printer. Who the promoters, directors, secretary, or treasurer of the Association may be we are ignorant; but we gather from the rules that the objects of the Association are to provide a fund for members out of employment, and to provide a fund, with medical attendance and medicines, for sick members. Laudable as these objects may be in themselves, we quite agree with the practitioners of Devonport that to offer gratuitous medical advice to "all persons employed in banks, merchants', tradesmen's, solicitors', insurance, and Government offices, and assistants, salesmen, travellers, artisans, mechanics, &c." (who are declared by Rule 2 to be eligible as members), is a gross injustice to the medical profession. It is no part of our duty to criticise the scale of payments by the members, or the soundness of the principles on which the scheme is based; it will be sufficient to say that we do not understand how an average subscription of two pounds a year can give a sick member a pound a week for the first six weeks, ten shillings for the following ten weeks, and eight shillings for the subsequent ten weeks, and yet allow of sufficient remuneration for the "district medical officer" of the Association, who is to provide attendance and medicine during the whole of that time.

THE HOSPITALS ABOUT SAARBRUCK.

OUR correspondent at Saarbruck informs us that the surgeons there now want no further assistance; but the first day after the battle 5000 wounded soldiers were lying in all directions. The hospitals have now assumed some order and organisation. The Dutch surgeons are highly commended for their organisation, which he declares to be the most complete there. The Dutch sent at first surgeons, nurses, porters, all ready for work, utensils, meat, &c., even beef-steaks, from Amsterdam. Their surgery is good. The Belgians have a set of temporary pavilion hospitals, knocked up cheaply of rough boards. The lot of ten cost 600 thalers; the wood was given. Gas and good ventilation in each, but small cubic space. Closets outside; the dry-earth system

(without the earth); excreta removed twice daily. The nursing throughout is excellent; sisters from all the best institutions, and some young ladies from Holland. The riding school, barracks, a large school, the gymnasium, and some other public places are filled with beds; and in private houses several officers are under treatment. Up to the present time there has been no pyæmia, typhus, or diarrhœa; but the two latter now come in from the army round Metz at the rate of twenty or thirty daily, and are being kept separately outside of the gymnasium. The tan is left on the floor to walk upon. All the patients seem to do well. Our best London hospitals have not the same freedom from secondary results. Doors and windows are all wide open; Condy's fluid and carbolic acid are much used. There is an enormous store of medical comforts sent from all parts; but, with the exception of the Dutch and Belgian hospitals, there is no order or system. There is also a feeling that no extra services are wanted from strangers. It is a mistake to think that English surgeons can see much surgery, except on the field of battle, or just after. Two young men from Guy's Hospital have been sent by the Prussian Embassy, and can find no employment; one, a demonstrator of anatomy and a first-rate man, must content himself with looking on, although he has made many excellent suggestions. The plaster-of-Paris bandage seems in favour. Very few splints are used.

THE TRUE NORMAL AMYLIC ALCOHOL.

AMIDST the terrible political storm which rages in France, it is worthy of note that her scientific activity is not altogether suspended. In the *Comptes Rendus* for August 16th there is an account of a most interesting piece of chemical investigation by Lieben and Rossi.

The amylic alcohol occurring in fousel oil bears a striking likeness in chemical character to common alcohol. By subjecting common alcohol to various processes, it may be converted into an immense variety of products. Thus, treated in certain ways with acids, it yields compound ethers; and when carefully oxidised it yields aldehyde and acetic acid. Now there is hardly one out of the immense number of products derived from common alcohol which is unrepresented by an analogous product derivable by an analogous process from amylic alcohol.

The fact of the existence of a chemical likeness of this marvellous kind between amylic alcohol and common alcohol, and of the frequent occurrence of likenesses of this sort in organic chemistry, gave rise to the doctrine of chemical homology. It was, moreover, observed that in cases of this likeness, such as the case of amylic alcohol and common alcohol, the chemical compounds related to one another differed from one another in chemical formula by CH_2 or by $n(CH_2)$.

Amylic alcohol differs from common alcohol by $3(CH_2)$; e.g.:—

Amylic alcohol, $C_5H_{12}O$;
Common alcohol, C_2H_6O;

and every product obtained from amylic alcohol by any process differs from the analogous product obtained from common alcohol by $3(CH_2)$. Thus the acids got by oxidising the two alcohols are respectively—

Valerianic acid from amylic alcohol, $= C_5H_{10}O_2$;
Acetic acid from common alcohol, $= C_2H_4O_2$.

By studying this example a good idea of the Laurent-Gerhardt doctrine of homology may be derived. Homologues in chemistry are compounds which differ from one another by $n(CH_2)$, but not otherwise, in structure, and which are capable of yielding parallel products. Since the doctrine was propounded some fifteen years ago, our ideas of the possibility of differences in structure have undergone great extension. Two or three years ago it was announced that the amylic alcohol of fousel oil (despite its so close resemblance to common alcohol) did differ in structure from common alcohol by something more than $3(CH_2)$—that it was *not perfectly homologous* with common alcohol. This discovery flowed very naturally from the splendid theory of primary, secondary, and tertiary alcohols, the initiation of which we owe to the speculations of Kolbe, and the researches of Wurtz, Friedel, Erlenmeyer, and Wanklyn. The discovery by Lieben and Rossi, which forms the occasion of this chemical sketch, is the formation by a precise and intelligible method of the true normal amylic alcohol, a true homologue of common alcohol, a chemical compound differing structurally from common alcohol by $3(CH_2)$, and *by nothing else*. The differences in structure between the amylic alcohol of fousel oil and that of Lieben and Rossi are shown by the following formulæ:—

Amylic Alcohol from Fousel Oil.	*Amylic Alcohol (Lieben and Rossi), normal.*
$C\begin{cases}CH_2CH\begin{cases}CH_3\\CH_2\end{cases}\\H\\H\\OH\end{cases}$	$C\begin{cases}CH_3CH_2CH_2CH_2\\H\\H\\OH\end{cases}$

Most interesting and most satisfying to the mind is it to learn that Lieben and Rossi's normal alcohol presents all those characteristic differences from the old amylic alcohol which investigation had led chemists to assign to a true normal alcohol. Its own boiling point, and the boiling point of all its ethers and other derivatives (so far as yet investigated), are higher than the boiling points of the corresponding compounds in the old amylic series. Thus, derived by oxidising it, there is a new valerianic acid of higher boiling point than the old valerianic acid. The method by which Lieben and Rossi have made their new alcohol is, as we have said, a precise and intelligible one. They took the normal butylic alcohol (discovered by themselves), and from it made cyanide of normal butyl. From cyanide of normal butyl they got normal valerianic acid; from that they got normal valeral; and from that, by hydrogenation, they made the normal amylic alcohol.

MORE BROKEN RIBS IN BOMBAY.

IT must be a bad thing to be a lunatic in Bombay, especially on a Sunday. The *Times of India* of Aug. 15th describes what it calls a very searching inquiry into the cause of death of a Portuguese lunatic. The jury sat five times, and came to the following verdict: "That the deceased died from the effects of shock following fracture of five ribs, but the jury is of opinion that there is no evidence to say precisely how or by what means the deceased's ribs were fractured." Nevertheless, enough transpired in the course of the inquest to show how very easily the fragile ribs of lunatics may sustain a fracture in Bombay, especially on Sundays. Lunatics there are handed over to the police, and kept in the lock-up, or what is called the "chowkey." They are sent on for examination to the police surgeon. But the deputy commissioner of police explained that it has not been the custom to send lunatics to the police surgeon on Sundays. Not only are lunatics retained over the Sunday, but all other police cases. It accordingly happens that cases of all sorts accumulate. "The mad, the drunk, and the sober," said the commissioner, "are locked up together." It was under such circumstances that the lunatic in question came by his broken ribs and a variety of other bruises, which gave him such a shock that he died in the Jamsetjee hospital in two days. It might well be difficult to define the exact form which the violence took. We entirely agree with the deputy commissioner of police that lunatics, when

temporarily under the charge of the police, should be placed under medical control, and should not be lodged in the police "chowkey." We greatly believe in Sundays as amongst the finest things that were ever "made for man"; but the Sunday observance that does not report a lunatic case to a police surgeon, and leaves it meantime to take its chance in a cell with drunken prisoners, had better be discontinued.

THE SALISBURY MEDICAL SOCIETY.

WE have great faith in the power of frequent social intercourse among busy practitioners to smooth down the asperities of feeling and conduct which are wont to be produced by the petty jealousies and groundless misunderstandings that constantly occur amongst men of the same cloth, and we only regret that the profession does not cultivate such intercourse more decidedly than it does. It is wonderful how soon we find ourselves in error in the estimate we form of our *confrères*, when thrown together around the social board. These remarks are suggested by a very agreeable and successful meeting of the Salisbury Medical Society, held on Friday, the 16th inst. The new President, Dr. L. O. FOX, of Broughton, had issued invitations to luncheon, which were responded to by a large number of the members and their friends, who came from Ryde, Warminster, Heytesbury, and other distant parts. Dr. Lush, M.P., and Mr. Bleek, of Warminster, in reference to the toast of the "Medical Press," were good enough to speak in terms of commendation of the efforts made by THE LANCET to cement the profession together more closely as a whole, to elevate its status, and to promote its interests. A paper was read and discussed after luncheon, and the members separated after spending a very pleasant day together.

HYDROCHLORATE OF QUININE IN WHOOPING-COUGH.

DR. BREIDENBACH calls attention to the benefit that may be derived from this remedy in whooping-cough when other means have failed. It has already been recommended by BINZ. It requires to be administered in comparatively large doses. To a child of three weeks, Dr. Breidenbach gave a grain and a half per diem; and to one of eight years as much as fifteen grains per diem. The improvement was in general speedily manifest; and no ill effects were observed, nor was it ever necessary to diminish the dose. In one severe case the violence and frequency of the attacks abated within forty-eight hours; and a subconjunctival ecchymosis, that had previously been persistent, showed symptoms of absorption.

FACTORY SURGEONS.

WE are glad to find that the Inspectors of Factories, in their half-yearly report, speak highly of the good effects of the certificates given by the factory surgeons as to the physical capability for employment of all persons under sixteen years of age. The surgeon's certificate has too often been regarded simply as a certificate of age, but it is really an important sanitary instrument, since it is a certificate of an examination made by a surgeon of the person of A. B. (either child or young person) that the said person has the ordinary strength and appearance (of a child) of at least eight, and of a belief that the real age of the said child is at least eight years, and that the said child is not incapacitated by disease or bodily infirmity from working daily for the time allowed by the Act.

Manufacturers complain, shortsightedly enough, that they ought not to be called upon to pay the certifying surgeon, and the Inspector allows that in some cases the fees have been too high, and in others so low that no medical man would take the appointment. The charge is no doubt increased on account of the surgeon having to go to the factory instead of the patient going to the surgeon; but this is necessitated by the fact that the opposite plan opens the door to wholesale representation of young children by older ones, the surgeon not having the check of seeing them actually at work.

The number of accidents in factories still continues very large; those due to machinery amounting to 3392, and those not due to machinery amounting to 5692, in the half year ending in April, 1870. Of the machinery accidents, 84 were fatal, 39 required amputation of the arm or hand, 536 led to partial amputations of the upper, and 11 of the lower, extremity; and the remaining number consisted of fractures, lacerations, &c. Of the accidents *not* due to machinery, the number of deaths was greater, being 102; but the accidents generally were of a less serious character, there having been only 4 amputations of the arm, 106 partial amputations of the upper, and 27 of the lower, extremity, and the proportion of fractures, contusions, lacerations, &c., being much larger than in the other class.

THE DISCOVERY OF CHLOROFORM.

WE have been favoured with the perusal of statements tending to show that Mr. David Waldie, now of Calcutta, did not receive his due meed of praise and credit at the hands of the late Sir James Simpson in connexion with the discovery of chloroform. We have read these statements carefully, but fail to find that the gentleman in question has been dealt with unfairly or inconsiderately. On more than one occasion, after Sir James Simpson's death, Mr. Waldie's name was mentioned in this journal as having been the first to suggest the use of chloroform; and had his claims been brought before us during the life of the late Baronet, they would then, as now, have received all due attention. But posthumous questions of this sort are always eminently unsatisfactory; and we cannot but suggest that Mr. Waldie and his friends should have brought the matter forward during the lifetime of Sir James, having had ample opportunities of so doing.

DRUNKENNESS AND FEVER IN LIVERPOOL.

IT is very sad that Liverpool at this season of the year should be so full of sickness of the zymotic order. During the week ending September 10th the deaths registered were 374, or 210 in the parish and 164 in the out townships, being 50 more than the corrected average of ten years, and 70 more than in the corresponding week of last year. Zymotic diseases occasioned 141 deaths, being an increase of 13 on the averages. 213 of the total deaths were of children below five years, and of these 145 were of infants below one year old. The prevailing epidemic among adults is, of course, the relapsing fever. Dr. Trench attributes the increased number of infantile deaths to the weakness of nursing mothers caused by relapsing fever. It is not wonderful that relapsing fever should spread in Liverpool, the most overcrowded town in the empire. But its great prevalence at this fine season of the year, when employment must be good, and overcrowding at its least, suggests that, notwithstanding all that has been done by the sanitary authorities in Liverpool, much yet remains to be done. There is little doubt that the great social evil of the poor in Liverpool is drunkenness. The medical men almost unanimously attribute the great spread of the disease to the filthy and drunken habits of the poor. This conclusion is not without good data to support it. A table is given in Dr. Trench's Report for 1867, from which it ap-

pears that of the 1537 chief tenants of the sublet houses, no fewer than 860 were, in the opinion of the inspectors, to be classed among the intemperate, while only 677 could be considered sober.

Mr. Williams, a relieving officer of Toxteth Park, a very poor district, and containing many Irish, said in 1866 to the Health Committee that destitution from want of work had been small in comparison with destitution arising from drink. If this were true in 1866, it is likely to be more so in 1870.

It is to be hoped that this epidemic will cause fresh attention to be directed to the social condition of the poor in Liverpool, and lead to some attempt to reduce the number of public-houses there.

LUNATIC ASYLUMS, IRELAND.

FROM the Nineteenth Report of Drs. Nugent and Hatchell, Inspectors-General of Lunatic Asylums in Ireland, we find that the total number of insane in Ireland on the 31st of December, 1869, amounted to 16,661; that the number of insane persons not resident in any asylum, poor-house, or other institution, but living with their relatives and friends, has been reduced in ten years to 2412 by the absorption of 2567 individuals into the various asylums provided for them; and that there was last year an absolute falling off of 174 from the number known to have existed ten years previously. The latter result is a very satisfactory one, particularly when it is remembered that the tendency of increased asylum accommodation is, as a rule, to apparently increase the amount of insanity existing in a country, by bringing to light a number of cases that would otherwise remain unknown. The inspectors refer at considerable length to the injurious consequences of the Act which empowers magistrates to commit alleged dangerous lunatics to asylums, to the compulsory admission thereby of all sorts of unfit persons, and the consequent interference with the regular course of admission by authority of boards, with the advice and assistance of their medical officers. They also state that, during the year, fifty-two bridewells admitted 149 lunatics, nearly all of whom were subsequently transmitted on magisterial warrants to district asylums; thus detaining them in places where the accommodation and attendance are necessarily of the most imperfect description, and quite unsuited to the requirements of the insane. The number of insane discharged during the year was 1625; of whom 1011 are returned as recovered, 471 improved, and 143 unimproved. The recoveries thus reach 43·8 per cent. on the admissions. The mortality was under 9 per cent.

AUSTRALIA AS A RESORT FOR THE PHTHISICAL.

IN all stages of consumption after the so-called "pre-tubercular," there is no evidence to prove that Australia possesses any exceptional advantages as a health-resort for the phthisical. An effort has been made in Melbourne to show that consumptive patients in even the most advanced stage of their malady may, with certain benefit, undertake a voyage thither from Europe, and immediately on their arrival make such further accessions of health as in a vast majority of cases to be perfectly cured. We regret that this news for the phthisical is too good to be true. The experiment has been so often tried, and has so signally failed, that European physicians are very slow to send consumptive patients past such excellent quarters for their malady as the southern shores of the Mediterranean, on a "voyage of recovery" to the Antipodes. Trustworthy statistics from Melbourne itself justify this reluctance on the part of our European brethren. Of all the patients who die in Melbourne Hospital, one-fourth are victims to phthisis, while the list of deaths that occurred in that institution between May 16th and June 13th of the present year gives, out of a total of twenty-six, no fewer than nine cases from phthisis alone, besides two in which there must have been, to say the least, a phthisical complication. All these cases were arrivals (with one exception) from England, Scotland, or Ireland; and seven out of the nine victims to phthisis were comparatively recent visitors to the colony.

PRESERVATION OF MEAT.

PROFESSOR GAMGEE'S process for the preservation of meat does not seem to have fulfilled expectations at Melbourne. Two cases, a cask and an iron cylinder, to all appearance securely packed and thoroughly air-proof, were opened at the Custom-house there, in the presence of members of the Intercolonial Conference, and others interested in meat preservation. On the iron cylinder being opened, the gas, it seems, "burst out with a hiss," and immediately affected the organ of smell most powerfully. The mutton in the cases was in similar evil plight; the pork ditto; while there was no beef among the contents at all. The whole consignment, weighing 527 lb., was disposed of to the tallow-makers at 1d. per pound. Another batch of cases, containing 50 lb. weight of mutton, in shoulders, legs, and saddles, preserved by the same process, was also opened, but with an equally disastrous result. The regret of the Victorians will be shared by many others that a process, seemingly so well calculated to preserve meat in all respects fit for human consumption, should so signally have failed.

THE DRAINAGE OF LINCOLN.

WHILE the Local Board of this city were vainly endeavouring to evade the pertinent inquiries of the Home Secretary relative to the pollution of the river Witham by sewage, strong evidence of its insalubrity was being supplied by the records of one of the city medical institutions. At the last monthly meeting of the Lincoln Dispensary Committee, the house-surgeon reported the recent occurrence of several cases of enteric and scarlet fever, "all on the waterside, and of a malignant character." These cases, he says, have been "probably occasioned by the putrid emanations from the river." Vague assertions about the general healthiness of the city are worthless in comparison with the simple logic of the house-surgeon's facts, as the Local Board will, we hope, be made to comprehend. Excremental pollution of earth and water in all its loathsomeness abounds at Lincoln, unless the letter of "Spero" in the *Lincolnshire Chronicle* of the 2nd instant is a romance. As might have been supposed, the Home Secretary has not been thrown off the scent by the red herring which the Local Board drew across his nose, and it is now announced that one of his inspectors will pay an official visit to Lincoln early in October.

AN IMPORTANT CORRECTION.

IN the last Quarterly Return of the Registrar-General the district of Yarmouth is made to appear in the very unsatisfactory condition of having had 17 fatal cases of fever out of 170 deaths from all causes in the June quarter. As Yarmouth has become a watering-place of considerable repute, such a statement as the foregoing was likely to attract attention, by no means to the advantage of the town. One of the Privy Council inspectors, being in the neighbourhood, was led to make inquiry as to the alleged prevalence of fever, when, upon examination of the local death registers, it turned out that, so far from 17 deaths from fever having occurred, there had really been only 2 fatal cases during the three months. The townspeople are

naturally indignant that a statement so damaging to their interests, and withal so entirely unfounded, should have been published in an official document, and the matter has been brought under the immediate notice of the Registrar-General. We have little doubt that the mistake will be traced to the local registrar. When it is remembered, however, that the local registration officers have only recently been called upon to undertake this new duty of making returns distinguishing the causes of death, and that few of them have any medical knowledge, it can hardly be wondered at that mistakes occasionally arise. Familiarity with the new form of return will no doubt reduce this chance of error by degrees to a minimum; and the perfecting process will be expedited by the publicity attendant on the exposure of such blunders as that just turned up at Yarmouth.

MILITARY SURGEONS FOR THE WAR.

WE are authorised to state that, on account of some objection made by the Prussian Government to Staff-Surgeon De Chaumont and Staff Assistant-Surgeon Count Wollowicz, it became necessary to nominate two other medical officers of the British army to proceed to the head-quarters of the Prussian army, to report upon the entire system of field hospital arrangements. Deputy Inspector-General J. Innis, C. B., and Staff-Surgeon Fitzgerald, have been deputed for this service, and have proceeded on their mission, accredited by the Prussian Government to the head-quarters of the Crown Prince, or wherever else it may be necessary for them to go in the course of their investigations. We can only assume that the objection taken to Dr. De Chaumont and Count Wollowicz arose from their foreign names; if so, it strikes us a very ridiculous one.

SCARLET FEVER.

THE number of deaths from scarlet fever last week in London was 157, as compared with 165 in the previous week, and 129 in the week ending 3rd September. The reduced mortality shown by the latest return is hardly to be taken as implying an abatement of the epidemic, but is most likely accidental, and may be more than compensated in the subsequent week. The disease was most fatal last week in the south districts, in one sub-district of which (Battersea) it caused thirteen out of a total of thirty deaths.

In the seventeen large cities and towns of England scarlet fever caused last week 269 deaths, against 276 in the week preceding. Its exceptional prevalence is said to be confined to London, Liverpool, and Bristol, only, of the large towns. In Bristol one-third of the gross mortality last week was caused by scarlet fever, the proportion having been one-fourth in the preceding three weeks. How severely the incidence of the disease has been felt at Bristol appears from the fact that in the last eight weeks the fatal cases have been equivalent to an annual death-rate of 7·4 per 1000 of the population, the corresponding ratio for London having been 2·1, and for Liverpool 2·4 per 1000.

MORTALITY FROM SNAKE-POISONING.

WE scarcely realise the importance of snake-poisoning as a cause of death in other countries. We have now before us an extract from a letter, dated the 11th August, from T. D. Beighton, Esq., of the Bengal Civil Service, magistrate of the subdivision of the Culna district of the Burduan province of Bengal. The Culna district comprises, we presume, 80 or 100 square miles, and has a population of about 300,000. Mr. Beighton says that deaths from snake-bite are singularly common in the subdivision. An average of one per day is reported through the police. The actual deaths are probably double the number reported. If this daily average is meant to apply the whole year round, we should thus get, in a comparatively small district, the frightful result of 700 deaths from snake-bite. It is lamentable to think that, despite the supposed remedial discoveries in this direction, we still seem to be without an agent to neutralise the effects of the bites of poisonous snakes.

A PATTERN LOCAL SECRETARY.

AMONGST the many instances of good judgment, on the part of the people of Liverpool, which contributed to render the meeting of the British Association a conspicuous success, the selection of Mr. Reginald Harrison as one of the local secretaries was by no means the least prominent. This gentleman appeared to be absolutely ubiquitous; and, in spite of the claims of his hospital work and his practice, he found time to bring his powers of organisation to bear upon almost every detail of the preparations, while his personal kindness to visitors was unbounded, and his exertions for their comfort untiring. In the minds of many of the members of the Association he has built for himself *monumentum ære perennius*; and, when the memory of the papers read in the sections has long faded before the light of new discoveries, his name will still be held in pleasant and cherished remembrance.

IMPROVED TEST FOR GRAPE SUGAR.

FEYLING'S test fluid, it is well known, is not very permanent, spoiling even in diffused daylight. Loewe recommends the following modification of it, which is equally sensitive, and very stable:—Sixteen grammes of pure sulphate of vitriol are dissolved in 64 grammes of water. To this solution 80 cubic centimetres of soda lye, having a specific gravity of 1·34, are added at a time, avoiding any elevation of temperature, until 112 grammes have been mixed; then from 6 to 8 grammes of pure officinal glycerine are poured in till the fluid assumes a beautiful azure-blue colour.

COMBATANT OFFICERS IN THE WRONG PLACE.

WHEN the subject of military finance is seriously raised in Parliament, we trust the War Office representatives in the House will have a reasonable answer to give when they are questioned as to what useful purpose military governors serve in army hospital administration. The public, who have to pay for the overgrown military establishment at Netley, have a right to know how it is that a medical officer, let his rank, talent, and experience be what they may, is so incompetent as to be unable to direct the affairs of a military hospital in a time of peace without support from the guiding hand of some gallant officer entirely innocent of any special knowledge that would fit him to assume such an office. There is a cumbrous and costly military machinery at Netley, which admirably realises the idea of a circumlocution office. The Royal Victoria Hospital ought to be considered a great success, for it provides for the reception of those who by reason of sickness or wounds can render no service to the State, as well as for those whose services in their present appointments are useless to the public; in a word, they are "combatant officers in the wrong place."

THE PHÆNOPHTHALMOTROPE.

F. C. DONDERS, in a recent number of the *Nederlandische Archiv*, has described an apparatus by means of which the movements of the eyes, in accordance with the laws laid down by Listing, can be demonstrated experimentally. It consists essentially of a sphere, revolving within three annuli upon three axes, arranged perpendicularly to one another.

MILITARY SURGERY AT SAARBRUCK.

ONE of our correspondents has spent three days in this neighbourhood inspecting the various hospitals, where upwards of 800 French and German wounded are located. Most of these cases consisted of men wounded at the actions of Spicheren or Forbach, and they have therefore been for about a month under treatment. Our correspondent was struck with the favourable progress which the wounded were making; but it must be remembered that the worst cases have been terribly thinned by death. The number of fractured thighs from bullet wounds was relatively very great, and there are vast numbers of men with two, three, or more bullet wounds. There were very few head wounds. Cases of injuries of the chest, with perforations of the lung, are also not uncommon, and these are, for the most part, going on well. The surgeons are very conservative in their treatment of cases of gunshot injuries implicating joints, performing resections as a substitute for amputations, the number of which was smaller than might have been expected. The operations of resection of bone at the elbow and shoulder joints have been numerous, but none at the knee have been performed. Our correspondent makes no attempt to go into special cases, or to give statistical results of treatment. All this will have to be done hereafter, when the medical and surgical history of the great Franco-Prussian war comes to be reviewed.

MEDICAL SOCIETY OF LONDON.

ON January 9th and 23rd, and February the 6th, 1871, Mr. F. J. Gant, F.R.C.S., will deliver the Lettsomian Lectures "On Excisional Surgery of the Joints; the conditions appropriate for Excision, the Operations, After-treatment, and Results." The first lecture will comprise the Knee; the second, the Hip and Ankle; and the third, the Elbow, Shoulder, and Wrist Joints. The course will be illustrated by a series of original specimens, drawings, and apparatus.

PRESENTATIONS.

A HANDSOME silver dinner service has been presented by his friends and neighbours to Dr. Thomas Milne, of New Deer, Aberdeenshire, in token of their respect for his private character and appreciation of his professional ability. The workmen employed at the breakwater works at Holyhead have presented to Mr. John Roberts, of Holyhead, a yacht (the *Fairy*), in recognition of the great satisfaction he has given them in his capacity of medical officer to the workmen's club in connexion with the above-named works. So marked an exhibition of good feeling on the part of a working class community towards a member of our profession is most creditable to both parties, and is an event of good augury.

ARMY MEDICAL SERVICE.

THE terrible war raging on the Continent absorbs all public attention at the present time; but we would fain direct the notice of the authorities at the War Office and Whitehall-yard to the stagnant condition of the Army Medical Department. The prospect of assistant-surgeons as regards promotion seems to be a very dreary one. There are, we believe, officers now on the list of assistant-surgeons of fifteen years' standing, many of whom are grey, and some of them must be over forty years of age. Some well-devised retirement scheme appears to be very much needed.

THE British Association have appointed a committee to report on a proposition submitted at Liverpool by Mr. A. Haviland for rearranging the registration districts of the country on the basis of the watershed and river system, in order to facilitate scientific inquiry. No doubt the present system, based as it is on the Poor-law divisions, is open to the great objection urged by Mr. Haviland—that the continual alterations of boundary are most perplexing to the student of our registration statistics. But surely this is a matter within the scope of the Sanitary Commission's inquiry.

THE *Pall Mall Gazette*, referring to the fact that children are permitted freely to run about the Temple Gardens for a given time every day, pleads for a like concession to the "small fry" of their neighbourhoods on the part of those who have control over the gardens at Lincoln's-inn and Gray's-inn, as well as Lincoln's-inn-fields, and those in many of the larger squares. No harm is found to result at the Temple, and the benefit to the health of the children who come thither from crowded courts and alleys cannot be otherwise than great.

THE Superior and four of the sisters who left University College Hospital last week for the seat of war, have safely arrived at Sedan, and are now labouring in the hospitals there. The remaining three sisters are going to Metz, to be ready to render assistance, when entry shall be possible within its walls.

TYPHUS is said to prevail at the present time in Penryn. It would seem that very little has been done by the local authority to amend the sanitary condition of the place since Dr. Thorne, of the Privy Council Department, reported upon its defects.

THE competitive examination of assistant-surgeons for the Royal Navy is announced for the 7th of November next, at the London University, Burlington-gardens. There are at least twenty-five vacancies.

THE current number of *Nature* contains the first of a series of articles by Dr. H. Charlton Bastian, in reply to Professor Huxley's inaugural address at Liverpool on the question of the Origin of Life.

THE deaths registered in London last week were the fewest in number recorded in any week since June, 1868.

Correspondence.

"Audi alteram partem."

FRACTURE OF BONES IN THE INSANE.

To the Editor of THE LANCET.

SIR,—Two cases illustrating the tendency to fracture in the bones of the insane have occurred in this neighbourhood.

Three weeks ago, Fred. W——, aged twenty-four, an idiot under my care, while being lifted out of bed by his mother, broke his thigh. The fracture was two inches below the trochanter, and the bone seemed snapped across like a piece of rotten wood. That he had been tenderly and carefully lifted I can testify, as I had remarked, more than once before, the loving care with which his mother lifted him from the bed to his daily seat in the chair.

The second case is that of a woman (a pauper) who has been insane for some years. She, while walking to the door of the cottage in which she lives, suddenly put her hand to her leg, crying out as if in considerable pain. She was brought back into the house, and, with the assistance of the relieving officer, who was making his accustomed visit to her and saw the whole thing, was carried up to bed. On examination, it was found that her thigh was broken,

the fracture being in the same position and of the same character as the last.

I do not attempt any commentary on the above cases, but, thinking them facts of importance, as bearing on the question (now *sub judice*) as to the treatment of the insane, consider it right to detail them. From the very nature of the point at issue, such facts only can be considered trustworthy as are observed and detailed by "outsiders," as the keepers in our asylums will naturally try to screen themselves by perverting the facts where violence *has* been used.

I am, Sir, your obedient servant,

Rothwell, Northamptonshire, Sept. 1870. JAMES MORE, M.D.

NAVAL MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—Your assertions are generally made with caution, on reliable authority, and I have noticed in your last week's editorial a statement that appears to me to put the Admiralty entirely in the wrong as concerns the question of Greenwich Hospital pensions to inspectors and deputy inspectors-general.

You state that, "The Treasury minute by which the addition of three pensions was authorised *upon the abolition of Greenwich Hospital* expressly stipulated that no new appointments were to be made until the number of pensions had been reduced to three."

It is most necessary that the merits of this question should be clearly and fully stated to the profession. The present Board of Admiralty have abolished the appointments of two inspectors, two deputy inspectors, and six first-class surgeons, thus destroying, to that extent, the rewards of long service. In 1865, when the Greenwich Hospital Act was passed, Mr. Childers told the House of Commons that "the doctors will have no cause of complaint, as they will find increased employment in the hospital"; and he therefore gave no Greenwich pension to the rank of inspector, and only one to that of deputy-inspector.

Notwithstanding this statement, he successfully opposed the appointment of an inspector-general to Greenwich Hospital in 1866.

In 1869, when further changes were contemplated, it was busily rumoured that two pensions of £100 a year each would be granted to inspectors-general in consideration of the loss of Greenwich Hospital appointments; and at that time three pensions of that amount were given to officers of the grade, and these were officially notified in the Navy List, together with the older pensions. This act of seeming liberality and good faith satisfied the profession that the Admiralty intended to act as justly towards it as it had to the other branches of the service dispossessed of offices in Greenwich Hospital. Since then every vestige of employment for medical officers at Greenwich Hospital has been swept away, and two of these pensions to inspectors-general, which you state "were authorised upon the abolition of Greenwich Hospital," have been already withdrawn, and the grant is now confessed to have been merely a temporary expedient.

I am, Sir, your obedient servant,

Sept. 20th, 1870. SCRUTATOR.

THE SIAMESE TWINS.

To the Editor of THE LANCET.

SIR,—Referring in your journal of last week to the paralytic seizures from which one of the Siamese Twins has recently suffered, you express an opinion that the fact that Eng's health has been unaffected by the paralysed condition of his brother goes far to show that they enjoy separate vitalities. I have within the last few days received letters from themselves and their family, giving me particulars of poor Chang's sudden illness, which confirm your views respecting the possibility of their separation is case of the predecease of one of them. They write:—

"We sailed from Liverpool on the 29th of July, and had a pretty rough passage. After being out about a week, Chang lost the use of his right side. We were sitting in the saloon playing checks (draughts), when he suddenly became paralysed. We landed in New York on Aug. 13th, and by this time he could talk a little. We got home on the 20th, and found all well. The route from New York is long and tiresome; but we got on as well as could be expected. We find very little improvement in the paralysed side....."

By the same mail one of Chang's daughters wrote to me as follows:—

"I am so distressed about poor papa's condition. He is so low-spirited; has nothing at all to say, and is so unlike his former self. He can scarcely move without assistance. To-day he has been trying to use a crutch, and thinks he can get on with it with some assistance. His whole right side is perfectly useless; he has no power to control any part of it, and we can but just understand what he says. He does not think he will get over it. Uncle tries to cheer him up, but he has nothing to say. I am so thankful that he is at home again."

I especially direct your attention to the sentence mentioning Eng's endeavours to cheer and comfort his brother, as indicative not only of unselfish kindness in that which must be considered a mutual misfortune, but also of a distinct and separate volition and vitality. It accords with what I observed when they were in England last year—that frequently one was indisposed whilst the other was in perfect health.

I am, Sir, your obedient servant,

HENRY LEE, F.L.S.

The Waldrons, Croydon, Sept. 20th, 1870.

THE INFANTS' HOME, GREAT CORAM-STREET.

To the Editor of THE LANCET.

SIR,—Being a reader of THE LANCET, I noticed in the number of the 3rd inst. a comment on the Infants' Home, Great Coram-street. I showed the same to Mrs. Main, the founder and superintendent of the Home, and she desired me to write to you so that things might appear as they are. It may not be uninteresting to your readers to know how the institution originated, being of recent growth (seven years). The many cases of baby-farming exciting a good deal of attention to the subject, the lady already mentioned was moved by the idea "how could the fearful amount of infanticide actually known to be rife be prevented?" She opened this institution with a view to further this object by receiving deserted mothers, who are suckling their children, into the Home until their children have been weaned (which is subject to the discretion of the medical attendant). They are then sent to situations, mostly as servants and nurses, and the children are sent out to nurse. The children who are weaned previously to applying at the Home for relief are sent out to nurse, as it was found they did as well out as if they had been received into the Home. Unfortunately, out of this class there are a great many brought to the institution in a half-dying condition, the result of passing through a bitter ordeal from the time of the mother being discharged from workhouse or hospital (lying-in) to the time of her application at the Home. Hence the high mortality amongst those sent out to nurse. Another reason why the mortality in the Home is lower than outside is because the children are only there a short time—namely, until being weaned. The inmates of the Home are always on the change, it being a sort of probationary place to prepare the mothers for situations, and to provide suitable persons to take the future care of the children.

Statistics are very useful, but exceedingly deceptive, if the general circumstances are not taken into due consideration. When it is remembered that the institution aids the worst cases of distress, wherein want and disease before and after confinement have produced most miserable objects in the form of puny and emaciated infants, it is not surprising that there is a large proportion of deaths amongst the inmates.

Happily, since October, 1869, the mortality has been much lower both in the Home and in the nursing department. In the former, out of 48 infants received and retained in the Home until they were weaned, there have been only three deaths. Of 88 who have been put out to nurse, there have been 12 deaths, one of which was accidental.

Out of 22 that died the year previously, as mentioned by you, one was sent to hospital and died, and a second was

restored to friends, and in the course of time it died also. These two latter experiments having proved unsatisfactory, would you presume the experiment of sending children to hospital, or restoring them to friends, likely to be discontinued? The same with equal force will apply to nursing.

I see both the in- and out-patients, and am fully satisfied more could not be done than is done, not only for the benefit of the child, but also for the welfare of the mother. In conclusion, allow me to remark that the nursing system answers admirably, and that there is no real source of anxiety to the health officer, nor to anyone else who will take the trouble to understand the nature as well as the statistics of the Home.

I am, Sir, your obedient servant,

RICHARD PARAMORE,
Hunter-street, Brunswick-square, Sept. 13th, 1870. Medical Officer.

UTILISATION OF SEWAGE.

To the Editor of THE LANCET.

SIR,—The public interest is excited on the utilisation of sewage, and I fear much that has been done will have to be undone in consequence of the ill-health that it will generate in the cattle, and in man directly and indirectly, by casting either the fluid or the solid in its impure state upon the land, vitiating the grass, and impregnating the air with noxious gases. One of the proper modes of treating it is as follows:—Erect machinery in all large towns; burn the rubbish and the solid night-soil in confined vessels, or otherwise form it into pure carbon, and purify the fluid manure by passing it through the carbon formed by the solid manure.

If you will kindly permit the insertion of this you will oblige an old subscriber: and I have not burdened you, fearing to take too large a space in your columns.

I remain, Sir, your obedient servant,

GEORGE WASHINGTON EVANS, M.R.C.S.
Reading, Sept. 17th, 1870.

SURGICAL NOTES OF THE WAR.

(FROM OUR CORRESPONDENT AT DARMSTADT.)

Sept. 5th, 1870.

MANY appeals have been made through the medium of the English newspapers for surgeons who are willing to proceed to the seat of war, where they are said to be much wanted. Now I can state from personal experience that this is not the case to anything like the extent represented. No one ought to come out to Germany unless he has a perfect colloquial acquaintance with the language, and even then it is extremely doubtful if he will be required, for on the German side they appear to be plentifully supplied with medical attendance. In company with three other medical men sent out by the Prussian Embassy in London, I was sent from Mayence to the head-quarters of the army in the front of Metz, but only to have our services peremptorily declined by Dr. Weber, Medical Inspector-General to the 2nd Army, on the ground that we could not speak German fluently; and if, on returning to Mayence, we had not met from the authorities there with more kindness and appreciation than we did from our professional brother at the front, ere this we should have returned to England without having had charge of a single case. As it is, we have now been nearly three weeks in Germany, and are only now getting into harness. Seemingly we are likely to be settled here till the termination of the war, and as perhaps it might interest the readers of THE LANCET to have from time to time a short account of any interesting cases, and as in a hospital containing over two hundred gunshot wounds there are sure to be many such, I will endeavour to supply this, and anything relating to hospital administration &c. that it may be in my power to mention.

The hospitals here, which are nearly all temporary, make up collectively from six to seven hundred beds, but the number of sick and wounded at present occupying them is not more than four hundred. A large increase may be expected when those wounded in the late battles before Metz arrive. The hospital of the greatest extent is the one situated on what are called the Orangeries, or gardens of the Grand Duke, and this contains at present between two and three hundred beds. It is supported and managed by the local Hülfs Verein, or Association for the Relief of the Sick and Wounded, of the Ladies' Committee of which H.R.H. the Princess Alice is president; and in her case this is not merely an honorary position. On the contrary, she takes the superintendence of all the work, visiting the hospitals twice a day; indeed, in activity and business-like habits she is an example to all, and that, too, under circumstances in which rest would be quite excusable. The writer had an opportunity of seeing her kindness to the patients, and how much it was appreciated by them in a visit he made to the hospital with her Royal Highness. To her interest are we mainly indebted for the privilege of having under our charge one of the pavilions of the hospital; although in fairness we must state that in this matter Herr Weber, the President, and other members of the Hülfs Verein, have also met us in the most cordial manner.

The buildings devoted to hospital uses are, firstly, two old erections which answered formerly for greenhouses, although built mostly of stone. They are high in the roof, and great efforts have been made to provide for ventilation. Besides being at present overcrowded, they are not so well suited for hospital purposes as the other buildings I am about to mention. These are pavilions, built with wooden roofs, and sides partly wood and partly canvas, and with ample provision for light and ventilation. They possess the advantages besides of containing only sixteen beds each, and of being detached and scattered through the gardens. They are seven in number, and two more are in course of completion. These buildings, if they were built in a little more substantial manner, and consequently more suited for winter weather, would be, to my thinking, the beau ideal of hospital arrangement; and already the German surgeons notice a marked superiority in the results obtained in these tents or barracks, as they are called, compared with those in the permanent buildings. The offices, consisting of kitchen, dead-house, post-mortem room, as well as the operating theatre, are all detached, but are well supplied with every modern appliance; indeed, it is astonishing to see all so well arranged in so short a time, and is only another proof of the great capability of organisation and sense of method inherent in the German mind. The medical staff has at its head Professor Lutter, of Berne, a pupil of Langenbeck, as consulting surgeon, and the other surgeons have each charge of about sixteen beds, all the medical men of the town taking their share. Prof. Lutter has several young Swiss surgeons with him. The nursing is amply provided for, great part being undertaken by the Sisters of Charity, and the rest is under the immediate superintendence of the ladies of the Hülfs Verein. As all is done by voluntary effort, the great thing required is money, and that is the best way in which assistance can be sent from England, for it can procure everything else. If any one should feel inclined to help in that way, I hope he will not forget the English Ward of the Orangeries Hospital at Darmstadt.

And now a word or two as to the patients. In going round the wards one notices that the wounds are nearly all inflicted by shots from the chassepot; some few by the mitrailleuse, but rarely indeed by the shell, those by the latter being usually too severe to allow of the sufferers being brought so far as this. Another thing is the great preponderance of wounds of the extremities, especially of the right elbow and arm, arising from the shot striking when the soldier is in the firing position. Compound fractures of the long bones or their extremities are very common, and in some cases they are extremely comminuted. One case was mentioned where, in excising an elbow, it was necessary to remove thirty-three fragments of bone. The operations mostly required are amputations of both upper and lower extremities, and excisions of joints; that of the elbow very common indeed; that of the knee has been tried three or four times, but does not appear to be in much favour. Then ligature of the arteries is frequently needed for wounds implicating them secondarily. Of course primary cases are treated on the field. The surgeons are extremely conservative in their surgery, making every possible effort to save the limbs of their patients, sometimes perhaps erring on that side. Carbolic acid is used, but only as a lotion, and not after Lister's plan; but I hope to have an opportunity of trying it upon gunshot wounds. Pyæmia is

not unknown, and some cases of erysipelas have occurred, but it is not of a malignant form. There have been three deaths from tetanus, and in these Calabar bean was used; but, as two died on the second and one on the third day, it could not have been of much effect. In future communications I will endeavour to give detailed accounts of some of the cases, which I could not possibly do in such a short acquaintance as I have yet had with the hospitals.

Sept. 14th.

Since I last wrote the two buildings at the Orangeries, one of which is intended to be used by the English department of the hospital, are rapidly approaching completion. They are built in a more substantial manner than the others, and are accordingly better suited for the winter weather that is now coming on so rapidly. The wooden parts of the huts are replaced, in great measure, by brick, and the canvas by wood and glass. The roof is covered with waterproof felting, and provision is made for warming by means of stoves; but the general plan of the buildings is the same as that of the summer erections.

The 240 beds which the hospital contains are not at present fully occupied; the number of patients under treatment are but 170. Only thirteen new cases have been admitted during the last ten days; but information has been received that at any moment a large number of wounded may arrive. In order to give an idea of the kind and amount of work done in this hospital, I will endeavour, without going into detail, to make a sketch of the operations which have been performed here during the last ten days. I may state that all the patients, as is to be expected, are men in the prime of life, and that the wounds which rendered operation necessary were received in the battles on or about the 18th August.

On the 3rd September Professor Lutter amputated the left arm of a French soldier at the shoulder-joint, for a compound fracture of the humerus. In this case there was a complete smash of the bone about three inches below the joint, and there was shown no inclination to heal. The situation of the external wounds somewhat modified the shape of the deltoid flap, otherwise the operation was performed in the usual manner, if we except—and these remarks apply to all operations here—the extreme care which is taken to secure all the arteries, and the great number and contiguity of the sutures inserted, as well as the tightness with which they are drawn together. This patient, so far, is doing well.

On the 6th September there were two operations, one of them being an amputation of the arm in a case of compound fracture of the humerus and ulna. It was intended in this case to make a resection of the elbow-joint, but a favourable chance did not occur, the wound became unhealthy, and, severe hæmorrhage having set in more than once, the arm was amputated, and done by the usual circular operation. Although the patient looked extremely anæmic at the time of the operation, he has done well since. On the same day Professor Lutter made a resection of the left hip-joint; the injury was a bullet-wound opening the joint and breaking the head of the femur. Besides this wound, the patient had two others, both, however, only on the soft parts—one in the face and the other in the right side. The operation was performed thus: A semilunar incision of about six inches in length was made in the gluteal region over the joint, which was then opened and the ligamentum teres divided; then, by inverting the foot and bending the knee slightly, the head of the bone was displaced sufficiently to allow a chain-saw to be passed over it, and the operation was completed without trouble. Nothing could exceed the neatness and dexterity with which the Professor did his work. There was some venous bleeding, deep in the wound, which was rather difficult to stanch, but, by plugging, this was effected. For some days the patient appeared to do well, but on the 11th he began to fall off, and died on the 13th, seven days after the operation, of exhaustion, as verified by post-mortem examination. I may here state, in passing, that up till now, in this hospital, gunshot wounds injuring the hip-joint or pelvic bones have all proved fatal, and these form a large part of the 6 per cent. which has been so far the proportion of deaths to admissions.

On the 9th September, Dr. Kellar, the director of the Orangeries Hospital, performed resection of the elbow-joint, for a shot-wound fracturing the olecranon and opening the joint; the single median incision was used, great care being taken to leave all the periosteum. There was a good deal of tumefaction about the joint before the operation, but it is now doing remarkably well. Two days after the operation the arm was put up in a plaster-of-Paris bandage, with an opening over the joint, and it has answered admirably. This is the form of stiff bandages used universally in Germany, and it has now completely supplanted splints or other appliances in the treatment of compound fractures, &c.

I may here mention a remarkable case of resection of the elbow-joint, under Professor Lutter's care, in another hospital in the town, the same from which, as I stated in my last, thirty-three fragments of bone were removed. I saw the case yesterday, and already there is reproduced bony substance in the place of the olecranon, the head of the radius, and the condyles of the humerus. The wound made in the course of the operation is completely healed, and there is a good amount of motion; the arm has nothing abnormal in its appearance except an enlargement at the joint, and it is now only four weeks since resection was made.

On the 7th also was removed about three inches of the left clavicle. There was a bullet wound splintering it much; but the immediate cause of the operation was profuse bleeding from a wound in the subclavian vein, which had been opened by a splinter of bone. Great care was taken in this case also to preserve the periosteum. After removing the bone and securing the bleeding point, the bullet was searched for, and found lying in the upper and back part of the neck, close to the spinal column. This patient died on the third day after the operation.

On the 8th, amputation of the thigh was performed for a bullet wound of the knee-joint. The shot entered in front, and smashed the ends of both the femur and tibia, and the joint, as a matter of course, was completely disorganised. The circular was the method adopted, and the operation did not present any peculiarity, if we accept an abnormality in the femoral artery, which divided into four above the seat of operation. Four days afterwards excessive hæmorrhage occurred from the stump, and the femoral artery was tied higher up. Since then the patient has progressed favourably in every respect.

On the 10th there was another exarticulation at the shoulder-joint, for compound fracture of the humerus from a musket-shot, perforating the arm and dividing the bone about four inches below the articulation. A deltoid flap was made, and the operation presented nothing peculiar. The patient has since done well.

From this sketch it will be seen that operative surgery is not confined in this war to the front, and that the rush to the battle-field to see operations is a mistake. Primary operations are, of course, only to be met with there, and no doubt they are more numerous than secondary ones; but you must sacrifice what is really the most instructive part, the after-treatment; and even so far from the seat of war as Darmstadt, there is enough of manual work to satisfy the most enthusiastic devotee of active surgery.

Obituary.

DR. W. D. CHOWNE.

THIS gentleman, whose death we regret to announce, has occupied a more or less prominent position in the profession for a long series of years. Dr. Chowne, we believe, was originally in practice in Lincolnshire, but subsequently came to London, and was associated with Dr. Golding in the establishment of Charing-cross Hospital, of which institution he was Consulting Physician at the time of his decease. He formerly held the post of Lecturer on Medicine and on Obstetrics at the same institution. Dr. Chowne took a very active part in the affairs of the Medical Society of London, and was amongst its first members, having been President of the old Westminster Medical Society. Amongst his contributions to medical science, are papers "On the Movement of Atmospheric Air in Tubes," published in the Proceedings of the Royal Society for 1855; "On the Relations between Elastic Force of Aqueous Vapour at ordinary temperature, and its Motive Force in producing currents of

Air in vertical Tubes;" "On Pseudo-morbid Appearances, Post-mortem," published in THE LANCET; &c. &c. Dr. Chowne held several consulting appointments in connexion with the lying-in charities of the metropolis. Of late years he was not engaged in very active practice; but his loss is regretted by a large circle of professional friends.

HENRY TURNER LANE ROOKE, M.D.

WE have to record with great regret the death of this skilled and kindly member of our profession, which took place on the 17th inst. at the Seamen's Hospital, Greenwich. Henry Rooke was born in 1824, was a student at King's College, and afterwards at the Edinburgh University, where he graduated. In September, 1848, he was appointed junior medical officer to the *Dreadnought* hospital ship, having as his chief Mr. Busk. Rooke succeeded his eminent friend and colleague in 1854, but very soon after obtained leave of absence from the Committee of the Seamen's Hospital Society, and went out to the Crimea as surgeon on the civil medical staff. His leave expired, but he resigned his post on the *Dreadnought*, remained on duty in the East until the conclusion of the war, and was actively employed for some time at the front, notably after the first attack on the Redan. Having returned home, and taken a short course at the Dublin Rotunda, he commenced general practice at Wisbeach, in Cambridgeshire, in conjunction with his brother-in-law, the late Mr. W. H. Hole. Those who live in that place and neighbourhood know how very popular a practitioner he was, and how many warm admirers he gained. But all his proclivities were against private practice; and the surgeoncy of the *Dreadnought* having again become vacant by the resignation of Mr. Tudor, he offered his services to the Committee, and was unanimously re-elected.

During the last epidemic of cholera, in 1866, Rooke, with the consent of his Committee, organised and carried out a most useful scheme of medical ship-to-ship visitation on the Thames, which was undoubtedly the means of preventing much disease, and also increased the usefulness and prestige of the Seamen's Hospital Society. It is probable that, when the *Dreadnought* authorities removed to their present quarters, Rooke would have resigned active work on the staff of the Society. But undoubted symptoms of epithelioma in the tongue appeared, and part of that organ was removed by Mr. Paget in February last. The disease, however, soon reappeared, made rapid progress, and he died on the above date after patient endurance of a speechless pain that it is not the lot of many to suffer.

Of his professional abilities we may speak very confidently. He was not enthusiastically fond of his profession, but he was a skilled and accomplished surgeon; he knew his duty, and he did it with all his might. Of his charitable kindness to his sick clients we may leave the seamen of many nations to speak, for his name is known and remembered wherever British vessels sail. And as to his social qualities, we may speak of the genial warmth that so eminently characterised him. Truth and honour, hospitality, and great natural as well as highly cultivated powers of intellectual conversation, with a very kindly heart, were united in him to form that which many of our readers have valued, and have now lost—an old and faithful friend.

SAMUEL W. FEARN, F.R.C.S.E.

MR. FEARN, the well-known surgeon of Derby, died in Switzerland on September 8th. Only in May last we noticed the retirement of Mr. Fearn from the post of senior surgeon to the Derbyshire General Infirmary—an office which he had successfully occupied for many years,—on which occasion the gratifying expressions used towards him sufficiently showed the estimation in which he was held by his fellow townsmen. Mr. Fearn studied at Guy's, Dublin, and Edinburgh, and became a licentiate at the Edinburgh College of Surgeons in 1832, and a Fellow in 1860. He had long enjoyed a good reputation as an operator, and his name will be handed down in connexion with the subject of aneurism as the first performer of the double distal ligature in innominate aneurism. Mr. Fearn also tied the common carotid in a remarkable case of wound of the internal carotid artery and division of the vagus nerve, a report of which will be found in the *Provincial Medical Journal* for 1847. He was a successful operator also on the jaws, having removed both upper and lower jaw, and having had the courage also to put on record a mistake in diagnosis, by which a large dentigerous cyst of the lower jaw (now in the museum of the College of Surgeons) was removed by disarticulation, being at the time supposed to be a solid growth. Mr. Fearn was one of the earliest to amputate through the knee-joint, and had on three occasions removed the os calcis. Having enjoyed a large practice for many years his health at length gave way, and he was seeking recovery in change of scene when death overtook him.

JOHN GAY, M.R.C.S.

THE death is announced, at the ripe age of seventy-nine, of this gentleman at his residence, Swindon, Wilts, in which town he had practised for over half a century. Mr. Gay succeeded his father in practice at Swindon, and some few years ago retired from active professional life in favour of his son, the late Mr. John Gay, whose death was recorded in our columns in December last. Mr. Gay was a student at St. Bartholomew's medical school, and was a pupil of Abernethy, his diploma dating from 1811. Perhaps no practitioner in the county of Wilts was more widely known or more generally respected than Mr. Gay, and it cannot be otherwise than a matter of sincere regret that a name which for three generations, extending over nearly a century, has been identified with the profession of medicine in North Wilts, has now passed from the region of existing facts to that of memory only. Mr. Gay was seized with paralysis about three years ago, but a fine physique and excellent constitution enabled him to recover marvellously from the attack; and, in the full possession of his faculties, death overtook him calmly and naturally on Monday, the 5th instant. Father and son now rest from their labours together, but their names will be household words in Swindon for years to come.

E. S. BRETT, ESQ.

YORKSHIRE has to deplore the loss of an able and accomplished physician in Mr. Edward Samuel Brett, of Bridlington, who died on the 19th ult., after repeated attacks of paralysis. The deceased gentleman began his professional studies at Leeds, whence he proceeded to Guy's, at which he qualified for taking the licentiateship of the Apothecaries' Company, and the membership of the College of Surgeons, in 1830. Shortly thereafter he settled in practice at Beverley; and on the death of Dr. Sandwith, of Bridlington, he transferred his professional labours to that town. There he continued to win the esteem and love of an ever-extending circle of patients, for his skill, his practical good sense, his kind heart, and his liberal hand. Besides his purely professional accomplishments, he had many of the tastes and qualities which are especially dear to the Yorkshireman. He was one of the best horsemen in the county, and was strongly enamoured of sport. His recreations in the field, however, were not allowed to interfere with his large and laborious practice, to which he devoted himself with such fidelity as seriously to impair his health. Some two years ago he sustained his first seizure of paralysis; and though he rallied wonderfully, he had to give up his practice to the well-qualified hands of his nephew, Mr. F. C. Brett. Later attacks, however, fairly broke down his strength, till about the close of last month, when he passed away. He was buried at the Priory Church in presence of a numerous assemblage of mourners, representing some of the best families and professional men in the neighbourhood.

CHARLES STURGES, M.R.C.S. & L.S.A.

WE recorded last week the death of this gentleman, which took place at his residence in the Commercial-road, E., after a protracted illness. Mr. Sturges' professional life, with the exception of an absence of some years from England, was associated with the east of London, he having been a pupil of the late Mr. Richard Pater, who was perhaps the most popular practitioner in that quarter some

forty years since. Mr. Sturges was widely known and highly respected in the east and north-east districts, and the funeral ceremony at Abney Park Cemetery was attended by a large number of patients and others, many of them of the humbler classes, who had come a long distance on foot thus to testify their sense of their great loss.

Medical News.

APOTHECARIES' HALL. — The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on Sept. 15th :—

Ringer, Beverley Stewart, Metropolitan Free Hospital.

As Assistant in Compounding and Dispensing Medicines :—

Butterworth, Albert, Halifax, Yorkshire.

The following gentlemen also on the same day passed their first professional examination :—

Alfred Robert Lee and Francis W. H. Popham, University College; Frank Wacher, St. Bartholomew's; Josephus Shaw, Guy's.

THE Board of Guardians of the North Dublin Union last week, by a large majority, voted an increase of £25 annually to the salaries of each of the medical officers and apothecaries holding appointments in their district.

MR. BASS, M.P. for Derby, has announced his intention of providing, at his own expense, free public baths for that town. The thanks of the corporation have been voted to Mr. Bass for his generous offer, and plans and estimates for the construction of the baths are being prepared.

THE late Mr. John Abbott, of Halifax, has by his will bequeathed the large sum of £60,000 for various public or charitable objects, including the following sums to medical charities :—£2000 to the Halifax Infirmary; £1000 to the Bradford Eye Institution; £1000 to the Bradford Infirmary; £2000 to the Leeds Infirmary; £1000 to the Cancer Hospital, Leeds; and £2000 to the Manchester Infirmary. Mr. Peter Tharel has bequeathed £500 to St. Vincent's Hospital, Dublin.

DEATH WHILE UNDER THE INFLUENCE OF CHLOROFORM.—On Wednesday evening Dr. Lankester investigated a case at the Royal Free Hospital in which a patient there died whilst under the influence of chloroform. The deceased, who was a stableman, aged thirty-four years, a short time since met with an injury to one of his fingers. He went to University College Hospital, where the limb was dressed, but on Wednesday last complained of his jaw, and went to the Royal Free Hospital in consequence. The surgeons there, perceiving that the man was suffering from tetanus, deemed it advisable to amputate the finger, and upon being taken to the operating theatre he was placed under the influence of chloroform by Mr. Thomas, one of the house-surgeons. After inhaling the drug for three or four minutes he expired. It was stated by Mr. Thomas that the duty of chloroformist was undertaken in turns, and that on previous occasions he had administered chloroform to patients. Dr. Lankester observed that a young medical man must have a beginning, and that in the present case everything had been done that was consistent in medical practice. It was stated by Mr. Dickson, one of the house-surgeons, that every precaution was taken, and the coroner having re-stated the case to the jury, a verdict of "Death from tetanus, accelerated by chloroform," was recorded.

Medical Appointments.

ADCOCK, C., M.R.C.S.E., L.S.A.L., has been appointed Surgeon to the Royal Mail Steam Packet Company's Steamer "Nile."

BROWN, G., M.D., has been appointed Medical Officer for District No. 9 of the Lexden and Winstree Union, Essex.

BURGE, F. J., sen., M.R.C.S.E., has been appointed Medical Officer for the Hammersmith District of the Metropolitan Mutual Medical Aid Society.

DOUGLAS, A. E., M.D., has been appointed Medical Officer and Public Vaccinator for the Warrenpoint Dispensary District of the Newry Union, Co. Down, vice I. Ashe, M.B., resigned.

DRAKE, Mr. A. J., has been appointed Resident Accoucheur to St. Thomas's Hospital.

DUKE, S., M.D., has been appointed Medical Officer for the Camberwell New-road District of the Metropolitan Mutual Medical Aid Society.

EAGER, R., M.D., has been appointed Resident Medical Superintendent to St. Luke's Hospital, vice J. T. Dickson, M.D., resigned.

FUSSELL, E. F., M.B., M.R.C.P.L., has been appointed Assistant-Physician to the Sussex County Hospital, vice C. I. Beard, M.B., M.R.C.P.L., resigned.

GREENE, R., L.R.C.P.Ed., has been appointed Assistant Medical Officer to the Sussex Lunatic Asylum, Hayward's-heath, vice P. Nicol, M.A., M.B., C.M., resigned.

HARRISON, Mr. H. B., of St. Mary's Hospital, has been appointed House-Surgeon to the Male Lock Hospital, Dean-street, Soho-square, vice Heycock, whose appointment has expired.

HILLIARD, H. C., M.D., has been appointed Medical Tutor and Demonstrator of Anatomy to Queen's College, Birmingham.

HUGHES, W. H., M.R.C.S.E., has been appointed Medical Officer to the Workhouse of the Ashton-under-Lyne Union.

HUNT, W. J., M.D., F.R.C.P.Ed., has been elected a Physician to the City Dispensary, Watling-street.

HUSTON, R. T., L.K.Q.C.P.I., has been appointed Medical Officer for District No. 4 of the Holsworthy Union, Devon, vice Nutt, resigned.

JACKSON, W., M.R.C.S.E., has been appointed Medical Officer for District No. 1 of the Lunesdale Union.

JERVIS, C., M.R.C.S.E., has been appointed House-Surgeon at St. Mary's Hospital, Paddington, vice F. Lewin, L.R.C.P.Ed., whose term of office has expired.

KEMPE, C. P., M.R.C.S.E., has been appointed Medical Officer for the Camden-town District of the Metropolitan Mutual Medical Aid Society.

MILLER, I., L.R.C.P.Ed., has been appointed Medical Officer for District No. 1 of the Melksham Union, Wilts, vice J. W. Stapleton, M.R.C.S.E., resigned.

MOIR, J., L.R.C.P.Ed., has been appointed Medical Officer for the Parishes of FARR and TONGUE, Sutherland, vice B. W. Black, L.R.C.S.Ed., deceased.

MORGAN, Dr., has been appointed Medical Officer for the newly arranged Magor District of the Newport Union, Monmouthshire.

PERRY, G. J., M.R.C.S.E., has been appointed Medical Officer for District No. 5 of the Melksham Union, vice Miller, resigned.

POTTLE, J. R., M.R.C.S.E., has been appointed Medical Officer for the City-road District of the Metropolitan Mutual Medical Aid Society.

ROSSER, W., M.B., M.R.C.S.E., has been appointed Resident Medical Officer to, and Lecturer on Chemistry at, Trinity College, Glenalmond, Perth.

SMITH, A. W., M.R.C.S.E., has been appointed Resident Clinical Assistant at the Hospital for Consumption and Diseases of the Chest, Brompton, vice J. Carnow, M.R.C.S.E., whose appointment has expired.

SMITH, J. C., L.R.C.P.Ed., has been appointed Medical Officer for District No. 2 of the Lunesdale Union.

TATHAM, E., L.R.C.S.Ed., has been appointed Medical Officer for District No. 3 of the Lunesdale Union.

TIMOTHY, P. V., M.D., has been appointed Medical Officer for the Finsbury District of the Metropolitan Mutual Medical Aid Society.

TURNER, G. E. W., L.R.C.P.Ed., has been appointed Assistant Medical Officer at the Coton-hill Lunatic Asylum, Stafford, vice Geo. Stanley Elliott, L.R.C.P.Ed., appointed Assistant Medical Officer to the Metropolitan Asylum District Asylum at Caterham.

WALLACE, R. U., M.B., has been appointed Medical Officer for the Dalston District of the Metropolitan Mutual Medical Aid Society.

WATKINS, E. T., M.D., has been appointed Medical Officer for the Bloomsbury District of the Metropolitan Mutual Medical Aid Society.

WELCH, R. R., M.R.C.S.E., has been appointed Medical Officer for the Clapton District of the Metropolitan Mutual Medical Aid Society.

WOOLLEY, T. S., M.R.C.S.E., has been appointed Medical Officer for the Codnor-park District of the Basford Union, Notts, vice Wm. Legge, M.R.C.S.E., resigned.

YOUNG, E. P., M.R.C.S.E., has been appointed Medical Officer for the Edgeware-road District of the Metropolitan Mutual Medical Aid Society.

Births, Marriages, and Deaths.

BIRTHS.

BARNES.—On the 16th inst., at Ewell, the wife of G. R. Barnes, M.D., of a daughter.

JACKSON.—On the 7th inst., at Clifton Villa, Plymouth, the wife of George Jackson, L.R.C.P.L., M.R.C.S.E., of a son.

JONES.—On the 10th inst., at Harley-street, the wife of W. H. P. Jones, M.D., of a daughter.

JOSEPH.—On the 3rd inst., at Battersea, the wife of James J. Joseph, M.R.C.S.E., L.K.Q.C.P.I., L.M., of a son.

LOWE.—On the 13th inst., at St. Mark's, Lincoln, the wife of Dr. G. M. Lowe, of a son.

MARRIAGES.

GRANT—GREEF.—On the 12th inst., at St. George's, Stonehouse, William Grant, M.D., R.N., to Olivia Kempe, daughter of Ambrose Kempe Greef, Esq.

LONG—COOPER.—On the 15th inst., at the Parish Church, Cromer, Norfolk, Mark Long, M.D., of Barking-road, Canning-town, Essex, to Sophia Amelia, eldest daughter of James Cooper, F.R.C.S., of Colne Lodge, Cromer.

DEATHS.

BARNES.—On the 6th inst., Thomas Buxton Barnes, M.R.C.S.E., of Thaxted, Essex.

BERNCASTLE.—On the 30th of June, at Melbourne, Julius Berncastle, M.D., M.R.C.S.E., Friends will kindly accept this intimation.

GILL.—On the 17th inst., at Dover, Nathaniel Best Gill, M.R.C.S., L.S.A., aged 49.

GOODISSON.—On the 16th of July, at Hong Kong, William Goodisson, L.R.C.P.Ed., Surgeon in the Peninsular and Oriental Steam Navigation Company's Service, aged 30.

STEEN.—On the 14th inst., Dr. Alex. Steen, of Queen-street, Derry, aged 76.

WATERS.—On the 14th inst., E. W. Waters, L.K.Q.C.P.I., of Tramore, Co Waterford.

Notes, Short Comments, and Answers to Correspondents.

"HOSPITAL SUNDAY" IN LIVERPOOL.

WE learn with regret that the anticipations we had been led to form in regard to the institution this year in Liverpool of a *bonâ fide* "Hospital Sunday" are not likely to be realised. As in previous years, there are to be Sunday collections; but, instead of being exclusively for the benefit of the medical charities of the city, the proceeds will be partly bestowed on certain sectarian institutions, wholly non-medical in their character. Thus last year, out of a gross collection of £1125, no less than £400 were apportioned to these non-medical and sectarian charities. The best proof that the thing is badly managed in Liverpool is found in the smallness of the result, and in the large proportion of places of worship which have hitherto stood aloof. Instead of courting the publicity essential to awaken general interest in their work, those who have undertaken to organise the collections in Liverpool seem to prefer keeping their own counsel; one not unnatural result being to lay them open to a charge of not being quite so disinterested in their motives as they should be. It is said, for example, that one of the honorary secretaries is chaplain and secretary of a non-medical institution, the Orphan Asylum, which last year received nearly one-fifth (£200) of the whole proceeds of the collections. The Liverpool principle of collection and distribution is entirely opposed to the true idea of "Hospital Sunday," and we trust that, while there is yet time, the matter may be taken up in a broader and better spirit by those who rightly appreciate the object in view. Catholicity is the one element of success in the "Hospital Sunday" movement.

Mr. Giles L. L. Hawkes.—The question is a legal one; but we apprehend that the parish authorities could not claim the sick money.

TREATMENT OF SCARLET FEVER.

To the Editor of THE LANCET.

SIR,—In reply to the somewhat personal remarks of Dr. Thompson, I am willing to make a few comments, and then, perhaps, the discussion should end, lest, there being nothing more to say, it should degenerate from the purely scientific tone of THE LANCET.

The gist of the argument used against my view is, that I do not prove my proposition by figures. Statistics founded on personal experience are never reliable. I know a surgeon, whose first 17 cases of lithotomy were successful; his mortality up to that date was at the rate of 0 per 100. An African rain-maker is allowed to try for rain only *once*. If he fails, he has failed at the rate of 100 per cent.; if he succeeds, he has succeeded at the rate of 100 per cent.; but he is not allowed to try again. A young friend of mine said to me, "I have attended 21 cases of midwifery, all boys;" average, 100 per cent. boys—a dangerous youth that was for the *deliciæ juventum futuræ*.

No practitioner should rely on numerical method in his own practice. Whenever I try it I find it unsatisfactory. Dr. Thompson may resurrect from chaos what he likes on this admission—a prehistoric man, or a prehistoric bucket for cold affusion, warranted to have been used on protoplasms for ages, and therefore safe with scarlatinal babies; no fear of general or renal congestion ending in dropsy; sure not to alarm them or their friends. Statistics may help us to an opinion about averages in 10,000 cases. I have known cases where the cold affusion has, to use a practical phrase, "driven in" the eruption, and the patient has died from the hydropathy; in one especially that comes very near to me. "Died from it"! you will say. "Can you *prove* it by arithmetic?" No; but I have proved it to my heart's sorrow, and, *as an observer*, I am *sure* of it, and wish I were not so. And here we come to the only basis of medical truth—opinion. Tried by this test, the cold affusion would be condemned by nine-tenths of the profession. Dr. Thompson speaks with contempt of the mass of rural practitioners' opinion. Opinions are worth nothing, except as they are the reasonable surmises of the men who see most, who have the most personal responsibility, and are the least trammeled. Among these no one would prominently place those ardent young men who write books, and *afterwards* become celebrated; but these very men whom Dr. Thompson despises—not as they once were, only witty and learned, and good theorists, but as they now are with these great additional elements, sole responsibility and extensive practice,—these are the men at whom your correspondent sneers, implying that *they* ought to look "to the leading men of the present race for a matured opinion," and who, therefore, are wrong because they will not drench babies with cold water. On this principle we must in medical questions ignore all information or opinions that do no find their sanction in written authority or arithmetic. If I see a child die, and I *know* what killed him, I must disbelieve what I see, unless I can give chapter and verse from some book published at 11, New Burlington-street. Authority would be a strange guide in medicine. Years ago it negatived contagion, except in some of the exanthemata; now it finds it everywhere. Once it sanctioned bleeding in almost every case; now in nothing. So with calomel. Irrevocably the verdict will soon be against the meddling, terrifying, depressive practice of cold affusion in scarlatina, to say nothing of its certainty in producing internal congestion, chiefly of the kidney, ending in albuminuria. It is the distinctive test between city and country practice, as is the excessive mortality that goes with it. The mother wit of the country would prevent it; the doctor would be in the river before his patients.

I am, Sir, your obedient servant,

Stratford, Essex, Sept. 19th, 1870. RICHARD SWETTING, M.D.

*** Here this controversy must terminate.—ED. L.

CLARK'S WATER-SOFTENING PROCESS.

WE are receiving frequent inquiries how to apply this process, and will take an early opportunity of complying with the requests of our correspondents.

Mr. W. Keith.—Dr. Handfield Jones has recently published a new edition of his work on the Functional Disorders of the Nervous System.

"BOBBING" THE MILK.

MR. ALFRED LEWIS ALEXANDER, of Old Church-road, Stepney, deserves to be known as a public benefactor. He is a cowkeeper and milk-dealer, and he has prosecuted one of his servants for "bobbing" milk entrusted to him for sale. The process implied in this technical expression is very simple, consisting merely of copious additions of water; and this, it appears, is a customary practice of journeymen milk-vendors, who thereby enrich themselves at the cost of the public and of their employers. The fact that milk enters so largely into the diet of young children, taken in conjunction with the excessive mortality among them from stomach and bowel disorders and from other diseases resulting from defective nutrition, points to the conclusion that the deterioration of this necessary of infant life is probably one of the most powerful of all agents in keeping up the infantile death-rate. It is not unlikely that a large proportion of the milk sold in London is "bobbed" by the master before it undergoes a second "bobbing" at the hands of his men, so that by the time it reaches the consumer little of its original virtue is left. Some of these days there may arise a Home Secretary who will devise a law for sternly repressing adulterations of food and drink; but until then we must put up with such protection as the force of competition supplies, which in the opinion of a Cabinet Minister is quite a sufficient protection. We have the misfortune to disagree with Mr. Bright.

M.D.—We omitted last week to direct our correspondent's attention to our annotation on "Sewage-grown Grass," where the subject is discussed.

CONGELATION AS AN ANÆSTHETIC.

To the Editor of THE LANCET.

SIR,—As I think the following case, from which, in order to be as brief as possible, I shall omit all unimportant details, presents a few points of practical interest, I beg to forward it.

Some years ago I had a patient, a man of middle age, on whom it was necessary to practise amputation of the forearm. The condition of his heart was such as to contraindicate the use of chloroform. His physical system was so far reduced that he could scarce totter about his room, and the nervous system was so shattered by long-continued suffering that the idea of the knife was unendurable. Under these circumstances I was puzzled how to carry out the operation, for which he was anxious, without pain or shock to my patient. At last, recollecting having read some striking remarks by Dr. James Arnott on the congelation of living tissues by means of ice and salt as an anæsthetic, I at once saw this was the only possible procedure suitable to the case, and determined to adopt it, although it had never been applied, as far as I was aware, to an operation of such magnitude.

Mixing, therefore, two parts of pounded ice with one of coarse salt, I placed them in a loose gauze bag, which was then wrapped round the limb at the point for operation. In seven minutes (less, I think, by a few seconds) the skin was perfectly frozen, presenting the dead-white aspect characteristic of that condition. I then proceeded to operate. On grasping the arm, I found the surface, of course, intensely cold; but, as I was not prepared for it, I was somewhat startled on finding the skin, usually so soft and movable, transformed into a rigid and impenetrable tube of frozen tissue. I was forced to wait a little till this condition of the surface began to yield to the influence of the heat remaining at greater depths, when I introduced the knife, and proceeded with the amputation, with so very little pain to the patient, and such relief to his mind, that he began to converse on some topic of the day before I had finished.

The system received no shock whatever, the wound healed without an untoward symptom, and the general health improved rapidly afterwards. On the anterior flap slight superficial vesication, about the size of a crown-piece, took place—the result, no doubt, of over-freezing. This is a point on which further experiments are required, as a knowledge of the time necessary for destroying sensibility without over-freezing is a desideratum. I had intended to institute experiments to determine this question, but circumstances have prevented me, and I now give my experience on the subject, in the hope that some one will take it up where facilities may exist for carrying out proper investigations. I think the period required for the production of cutaneous insensibility will be found to be about five minutes; but great interest would also attach to the investigation of the further physiological effects of congelation in modifying disease, or in relieving pain, whether structural mischief or disorder of function alone was present.

For the operation which is the subject of this communication, the ether spray, even had it been discovered, would not have answered, as I could not have applied it all round the limb. But, even as it is, I think it far from improbable that the freezing mixture would be a frequently much less painful application than the ether. It is also much more convenient and manageable, and can be applied with greater topical precision. It has not to depend upon a carefully adjusted apparatus being properly worked, or upon the purity of a delicate chemical compound, but will always do its allotted task quickly and without fail. With the spray, although that portion of the skin where evaporation is most rapid is quickly reduced to a state of insensibility, the neighbouring surface, which in all cases cannot be shielded, is also being gradually robbed of its caloric, and is very painfully alive to the process. On the other hand, neither more nor less than the exact surface required is exposed to the influence of the freezing mixture, and every point of that surface receives simultaneously the full effect of the anæsthetic.

I do not wish by these remarks to detract from the merits in many cases of the ether spray. Long may its distinguished discoverer be enabled to pursue his profound investigations in the field of medicine. But I wish to put in a plea for an agent still more potent than the ether, and which, I think, has scarcely received, except from the writer formerly alluded to, that degree of attention which is due to its deserts.

I remain, Sir, yours truly,

J. W. AGNEW, M.D., M.R.C.S. Eng.

Hobart Town, Tasmania, June 16th, 1870.

Dr. Page, (Newcastle.)—We shall be happy to do so; but the shorter that the communication is, consistent with clearness, the greater is the probability of its obtaining an early insertion.

MEDICO-SANITARY SUPERVISION.

SOME of our contemporaries have credited the Government with the intention greatly to increase the number of medical officers employed for the purposes of sanitary supervision under the Privy Council. It is said, in fact, that the whole kingdom is to be divided into sanitary districts, each under a medical officer, with a salary of not less than £600 per annum. As this idea formed part of a scheme of sanitary organisation developed in our columns last year, we shall, of course, be highly gratified if it becomes an *fait accompli*. But it is surely premature to speak of the "intentions" of the Government upon a matter which cannot yet have emerged from the region of possibilities into more definite existence. The special question of effective medico-sanitary supervision is but a part of the very large general question now and likely to be for some time under consideration by the Royal Sanitary Commission, whose recommendations the Government will presumably await before forming any "intentions" upon the several issues raised by the inquiry.

Army Medical Officer will perceive that we have alluded to the subject of his communication. It does not appear to us that the adoption of our correspondent's suggestion would be desirable. As it is, there is difficulty in getting the seniors to retire, and his proposal would tend to increase it.

Mrs. Butler, (Liverpool.)—We regret that we cannot find room for the insertion of the proposed Protest against the War.

THE CASE OF STRANGULATED INGUINAL HERNIA AT THE HUDDERSFIELD INFIRMARY.

To the Editor of THE LANCET.

SIR,—I think if Mr. Knaggs will trouble himself to reperuse his letter in your last impression, he will see that it contains a glaring inconsistency. He intimates that had he known he was about to be taken "so sharply to task" concerning his pathology, he would have made use of the words "reversed movements of the contents of the bowels," instead of "reversed peristaltic action of the intestines," leading anyone who reads his sentences to conclude that he was perfectly cognisant of the fact that it *was* the *contents* of the bowel that had its direction reversed, and not the normal *peristaltic movement* of the bowel itself; and yet he brings forward Mr. Erichsen as an authority, affirming that there *is* such an action of the intestine as anti-peristalsis, which causes fæcal vomiting, and, moreover, he does not hesitate to take shelter behind this authority. To which theory of fæcal vomiting, then, does Mr. Knaggs give his adherence? Certainly anyone reading his letter would be quite justified in affirming that Mr. Knaggs was a believer in *both* theories, though by what extraordinary mental process Mr. Knaggs accomplishes that feat we must all be at a loss to discover. Mr. Erichsen, as everyone knows, is quite capable of defending his own opinions, which must always command respect; but in the face of this I respectfully submit that Dr. Brinton's is the true pathology of fæcal vomiting. The mere fact of the *rare* occurrence of reversed peristaltic action, as ascertained by recent experiments made by Legros and Onimus, is in itself a strong argument against its being the cause of fæcal vomiting; considering that this latter symptom is of *frequent* occurrence in strangulated hernia.

I maintain that Mr. Knaggs has no right to excuse his own erroneous notions on the subject by the plea that they are shared in by someone else; and, without at all doubting that he actually did find the words he quotes in Mr. Erichsen's book, may I be allowed to ask him if it was not an old edition that he consulted?

My only object in calling attention to the remarks which Mr. Knaggs appended to the report of his case was to ensure a correct notion of the cause of fæcal vomiting; and knowing the late Dr. Brinton's views on the subject, and that they were largely believed in by scientific men, I thought it a good opportunity, when a hospital surgeon produced a case to illustrate the existence of anti-peristalsis, and the difficulties attending the diagnosis of its cause, to get some discussion on the point, and the more especially as pathologists of the present day recognise a cause quite the reverse of that assigned by Mr. Knaggs to the vomiting.

In conclusion, I beg to protest most strenuously against the idea of wounding the feelings of Mr. Knaggs by "so sharply taking him to task;" but must at the same time assure him that I do *not* feel that remorse he thinks I shall experience on a reconsideration of the subject, being well assured that my remarks did not exceed the bounds of fair criticism.

I am, Sir, your obedient servant,

Norwood, September 17th, 1870. J. TOMPSETT.

*** We have been requested to state that the notes and remarks on the above case were forwarded by the assistant house-surgeon, not the house-surgeon.—ED. L.

BREACH OF PROFESSIONAL ETIQUETTE.

Mr. T. J. Starling complains that Dr. Thomson has not given the names and addresses of the patients whom Dr. Thomson accuses him of having visited. It is to be regretted that Mr. Starling did not make this request privately to Dr. Thomson in answer to his first letter of complaint. But as the dispute is now published in our columns, the request of Mr. Starling for particulars seems to us reasonable. When the specific facts are before us, we shall give our opinion of them.

Analyst.—The little work by Messrs. Wanklyn and Chapman.

Mr. S. Sacade Brown is thanked for his communication. We do not observe anything in the pamphlet calling for special notice at our hands; but it contains much excellent information for lay readers upon sanitary topics. There is an awakening on the part of the laity to the importance of sanitary measures, which would be developed more rapidly if the general press could be induced to take up the subject a little more warmly than it has hitherto done.

PRESCRIBING DRUGGISTS.

THE pressure on our columns prevents our noticing this week the communications we have received on the above subject.

THE MIDLAND SELF-SUPPORTING DISPENSARY.

THE circular in which this dispensary and Dr. A. C. Hopton are advertised is before us. Of course the institution is not a dispensary in the ordinary sense of the word. It is practically the private residence of Dr. Hopton, who, in the circular, announces that "tickets may be obtained at the dispensary, entitling the holder to medical attendance and medicines for fourteen days, price 3*s.* 6*d.* each." Supposing the patient to require a daily visit, this pay is at the rate of threepence a visit. Dr. Hopton and his dispensary have been under our notice before. Indeed he does us the honour to make a quotation in his circular from our remarks on that occasion. But his quotation is slightly imperfect. We shall give on one side the words he quotes, and on the other the words he omits:—

"The man who shall devise a self-supporting dispensary, which shall preserve at once the independence of the poor and the dignity of the medical officer, will be entitled to great praise."	"We need not say that Dr. Hopton, in our opinion, has not earned this praise."

It is not by issuing handbills, advertising one's own name and address, and calling these a dispensary, that the dignity of the profession is to be maintained. It is by such behaviour that the cause of self-supporting dispensaries is brought into contempt.

Atlas.—We are not acquainted with any professional man who would be willing to comply with our correspondent's wishes.

MEDICAL SERVICE IN WEST AFRICA.

To the Editor of THE LANCET.

SIR,—It is with feelings of gratitude that we have perused your leading articles in THE LANCET, advocating our claims to the rank of surgeon-major, as laid down in the Warrant prior to 1867. Our thanks are also due to Mr. Raikes for bringing the subject before the House of Commons; at the same time we regret very much that his motion terminated in a count out. That we have suffered great injustice no one can deny. When I entered the service, the late Director-General informed me that double time *would count* towards surgeon-major; but unfortunately, for the benefit of red-tape, this was not given to me in writing. In the Warrant previous to 1867, it is distinctly laid down "that service on the West Coast will count as double towards retirement and promotion." The rank or qualification (as the authorities call it) of surgeon-major is decidedly promotion; there can be no question about it. The pay, allowances, rank, &c., are increased; and if this does not mean promotion, I do not know what does. May I ask what are the advantages to be derived from Coast service now? A diseased liver, spleen, and shattered constitution. Surgeons are in excess, the Gambia is given up as a military station, and Cape Coast Castle is to follow shortly. Sierra Leone will be the only station retained. When may we look forward to promotion? Assistant-surgeons are leaving the Coast service in disgust. Surely double time of all those who entered the Coast service prior to 1867 might be allowed to count towards surgeon-major. Promotion to the rank of surgeon we need not look forward to; and should anyone be fortunate enough to get it, they insist on his serving out here for three tours as a surgeon. There are very few of us that come under the old Warrant, and the pecuniary loss to the State would be very small.

I remain, Sir, yours truly,

July 27th, 1870. ONE WHO HAS BEEN TAKEN IN.

Junior Practitioner.—1. It is not professional in a F.R.C.S., a senior or a junior practitioner, to bring a midwife into a district, and hand over to her cases of midwifery to be attended for a guinea, because he does not choose any longer to attend cases for less than two guineas.—2. It is not unprofessional to commence practice in a neighbourhood without purchasing a practice. It is difficult to understand how any medical man could assert of another that he acted unprofessionally in commencing practice independently. Such a charge is at least highly complimentary, as it shows a total want of any real ground of complaint.

Highlands.—We do not prescribe.

TRIPLETS.

To the Editor of THE LANCET.

"We find among British practitioners in 257,935 cases, 43 cases of triplets, or 1 in 5561½ cases."—*Churchill.*

SIR,—Taking the above statistics into consideration, I feel justified in adding one more case to those recorded.

On September 6th, I was called to attend a woman in labour for the eighth time. Strong pains lasted uninterruptedly for two hours, when a footling presentation occurred. As pains continued, I offered no interference till the umbilicus appeared. I then pulled down the cord, and kept it from pressure. A female child was born without difficulty. Binder applied, and pressure on the uterus with the hand. No pains returned. When three hours had elapsed (no cause for delivery having arisen), I ruptured the membranes. A large quantity of liquor amnii escaped. I waited half an hour, and administered two doses of ergot (half a drachm each) at an interval of twenty minutes. No recurrence of pain whatever since the birth of the first child. The woman became greatly exhausted. I gave stimulants; and failing to reach the presenting head with the long forceps, I introduced my right hand into the uterus, and with difficulty brought down the feet, and delivered a second female child, in doing which I discovered the third child very high up. I again tightened the binder; and while dividing the cord of the second, the remaining child, a male, was expelled, head first, without pain. The placenta came away immediately, and showed the former outline of three separate ones. The cords were distinct, and attached equidistant to the placenta. No hæmorrhage. All three children perfect in every respect.

Up to the present time, thirty hours after, mother and infants are doing well. As there are seven other children, and the father is a poor labourer, I shall gratefully receive and acknowledge any contributions through the medium of your journal. I am, Sir, yours truly,

WM. E. MACAULEY.

Hatfield Broadoak, Harlow, Essex, Sept. 7th, 1870.

THE LONDON LABOURERS' DWELLINGS SOCIETY.

THIS Society, formed in 1861, is an out-growth of the Cottage Improvement Society at Hastings, of which Dr. Greenhill was one of the main promoters. Finding their efforts successful at Hastings, Dr. Greenhill and his coadjutors were moved to try a similar experiment in London; and as a beginning, property was purchased at St. George's-in-the-East, afterwards at Lambeth, the number of tenements now belonging to the Society being 317. At the last half-yearly meeting of the Society, the usual dividend at the rate of 5 per cent. per annum (free of income-tax) was declared, the capital amounting to £43,100, the sinking fund for redemption of leasehold property to £1467, and the reserve fund to £4093.

Hearieus.—We regret that, having no information to guide us, we cannot express any opinion as to the character of the practice advertised. The gentleman's name and qualifications are in the Medical Register, and our correspondent had better institute for himself the necessary inquiries.

REGISTRATION OF DEATHS.

To the Editor of THE LANCET.

SIR,—The following circumstance, which occurred during the last few weeks in my practice, may illustrate one of the difficulties which surround the registration of disease.

I was requested to see a woman who had been delivered of twins by a midwife six days previously. One of the twins survived its birth but a few hours; the other at the time I saw it was a poor, puny, ill-nourished child. It appeared that the parents were anxious to bury the deceased infant; but were unable to do so from the fact that the sexton refused to bury the unbaptised child without a certificate. This they were unable to obtain, as no medical man had attended the child. The relatives applied to the local sub-registrar (residing seven miles distant), who writes to the clergyman of the parish to the effect that if the child is buried he will give a certificate at his next visit to the village two weeks later. The clergyman declined to act on this authority; the sexton refused to bury the child. When I was called in, on one of the hottest days of summer, I found the decomposing body of the child in a box in the bed-room of the mother, who had been also upset by the visit of a policeman to the house. Of course, according to the wording of the ordinary death certificate, I was unable to certify the cause of death. Here was a mother in a state bordering on puerperal mania, one twin gradually sinking in her room, the other decomposing in the same chamber. There was no deadhouse wherein to deposit the corpse. My duty was to do my best for the mother and surviving child. Unable to effect anything with the clergyman or magistrate, I sent off one of those present at the death of the child to the registrar, and at last permission was obtained to bury the body. There was not the remotest suspicion of foul play; but a mother's health and life were very nearly sacrificed to a red-tape system of registration.

I am, Sir, yours obediently,
Sidmouth, Devon, September, 1870. J. INGLEBY MACKENZIE.

*** Judging from the circumstances detailed by our correspondent, as well as from others which are frequently brought under our notice, it seems clear that the provisions of the Registration Act are very imperfectly understood by many persons whom they concern. There is nothing in the Act to justify refusal to bury a body prior to the registration of the death; on the contrary, it is provided that whenever burial takes place without a registration certificate of death being produced, the person officiating at the interment must, under a penalty of £10, give notice of the fact within seven days after to the registrar. The clergyman, therefore, appears to us to have acted unjustifiably in refusing burial to the child; but we are also of opinion that the registrar should be called upon to offer greater facilities for registration than a visit once a fortnight to the village in question implies.—ED. L.

One of the Old School.—We would gladly insert our correspondent's letter if it in any way refuted the statements of our correspondent, "Reformer." But it does not. We would give careful consideration to any suggestions he likes to make to us for placing "the vexed question in a clearer light."

EGYPT FOR INVALIDS.

To the Editor of THE LANCET.

SIR,—Dr. J. Henry Bennet's remarks in THE LANCET of last week, on the Climate of Egypt, are apparently not founded on personal experience.

The statement that Alexandria and Cairo are "two of the most unhealthy towns in the world," is, I think, capable of disproof. But, be that as it may, I can testify, from the experience of last winter spent at Ramleh, that a house can easily be got there, free from all the hygienic defects Dr. Bennet so graphically depicts.

Ramleh is a town of scattered villa residences (principally inhabited by Alexandrian merchants), four miles to the east of Alexandria, and pleasantly situated on the shores of the Mediterranean. It has not only a good English hotel and sanatorium, but also every accommodation and comfort for a large number of invalids. It has a mean winter temperature of 64°, the lowest temperature during last winter being 50°, and there was not a single day during our lengthened sojourn when invalids were unable to enjoy in comfort exercise in the open air.

Circumstances made it my duty to leave Ramleh for a time last February, and to visit Hyères, Cannes, Nice, Mentone, San Remo, &c. I was greatly surprised to find the climate so much colder than in Egypt, and the temperature more variable from day to day. At Hyères I was caught in a hail-storm; at Cannes the invalids had not been out of doors for some days; at Nice the cold wind was blowing the dust in clouds along the English Promenade; and even at the Hôtel des Anglais at Mentone we needed fires and extra clothing. Such being my unlooked-for experience, I gladly returned to the more genial climate of Ramleh.

I am, Sir, your obedient servant,
ROBERT BAKER, M.D.,
Ex-President of the Royal Medical Society of Edinburgh.
Thirsk, September 20th, 1870.

Volunteer may consult Prof. Longmore's article on "Gunshot Wounds" in Holmes's System of Surgery with advantage. The arrangements may be briefly sketched as follows:—In the open field the wounded receive a preliminary dressing at the first lines of surgical assistance, where the medical officers are posted so as to afford speedy help to the wounded. Fortunately all surgical authorities are agreed that the simpler this provisional treatment is, the better—such as the application of a piece of lint to the wound, the adaptation and arrangement of any support to the injured part that may be required, the occasional administration of a little wine or diffusible stimulant in cases where shock is present, and the guarding against hæmorrhage, &c. Of course a medical officer cannot in the few moments or minutes at his disposal make any attempt to diagnose the injury, or adopt any definite treatment in regard to it; but a very cursory examination will generally enable him to provide against immediate dangers, and to distinguish those injuries that will require extra care during their transport, or the immediate attention of those in charge of the field hospitals at the second lines of surgical assistance, whither the wounded are transported.

MEDICAL EVIDENCE.

To the Editor of THE LANCET.

SIR,—For the credit of the profession and the security of the public, surely some plan might be hit upon, or some legal measure adopted, for preventing such conflicting medical testimony going before the world as we have lately had experience of at these Yorkshire Assizes—a number of medical men for the plaintiff contradicting an equal number of medical men for the defendant. Such exhibitions are very lowering to the profession, and the natural result is, no influence with a jury, and we expose ourselves to the contemptuous observation of a juryman: "It does not matter; I think the jury will not pay much attention to it after the medical evidence we have heard in the other Court this week." It may be asked, How are you to avoid such exhibitions and prevent conflicting medical testimony, for medical opinions will differ in certain cases of doubtful result and obscurity? Granted medical men will disagree in certain cases; but this is no valid reason for going into a court of justice to dispute about them. I think the remedy is the formation of a Board of Arbitrators, composed of, say, two independent, upright medical men of experience, ability, and standing, along with one lawyer, giving them power to call evidence. The decision of such a Board to be final in the majority of cases, and their award to be submitted to one of her Majesty's judges for reversal or approval when the amount in dispute exceeded a certain sum, say £500. The members of the Board to be nominated by the magistrates of the district at their respective sessions; to hold office from year to year, or a term of years; and any railway accident in dispute happening in the district or division of the county to be heard and settled by such Board—that is, when medical evidence is required. Of course the simplest plan, if it could only be generally adopted, would be for the sufferer to name his medical man, and the Company another, and the result of their decision as to compensation to be made final; or, if they could not agree, a third party to be called in to act as umpire; but this course, sometimes adopted, I fear, the lawyers would not advise or submit to, as a general practice, and the lawyers too often make the law.

We little thought when the late Mr. Wakley, M.P., applied to a number of us to obtain evidence in favour of the Medical Witnesses Act, 1837 (and which through his exertions and influence was carried through the House of Commons), that we should live to see the day when medical witnesses would get such a snubbing as they have recently had on more occasions than one in our public courts of justice. We are bound to try to remedy this disgraceful state of things, and the evil will be obviated in a great measure if the members of the profession would be determined to uphold its dignity and independence, and never submit to assist in getting up for trial railway accident cases, nor make out one sort of bill to a private patient and another for a public company, and, when called upon to furnish evidence, neither exaggerate nor under-estimate the symptoms and effects in any particular case. The expression of our honest, conscientious opinions will always be received with respect, and have their due weight upon judge and jury. But when one surgeon swears one thing and another the opposite in the same case, of what influence is medical testimony? It is then, as we have just seen, treated with contempt, and set aside. The tendency of public opinion is (and it will be more strongly manifested if we do not mend) to set at nought medical testimony, or do without it altogether. What a creditable state of things to be found in what we are somewhat vainly terming our noble profession!

Yours faithfully,
Leeds, August 26th, 1870. J. J. IKIN, F.R.C.S.

NATURAL SCIENCE IN NEW ZEALAND.

We are glad to notice the announcement of the institution of a Chair of Natural Science in the University of Otago, New Zealand.

"While an extensive acquaintance with natural science is indispensable, the University Council have resolved to give a preference, *ceteris paribus*, to the gentleman who shall produce the most satisfactory evidence of ability to teach chemistry and mineralogy, and the practical application of these sciences to agriculture and mining respectively."

This is as it should be, and the Council of the University will, no doubt, secure the services of an able man, since no religious or other restriction is imposed upon the holder of the office.

"The salary attached to the Chair will be £600 per annum (which will commence to run from the date of embarkation), besides the class fees, which have been fixed at £3 3s. for each student per term of six months, commencing in the beginning of May each year, and an adequate allowance will be made for passage money and outfit.

"Applications from candidates must be addressed to John Auld, Esq., W.S., Edinburgh, agent of the Province of Otago in Britain, and, along with fifteen printed copies of testimonials, be in his hands on or before 10th October next."

Mr. T. Kitchener (Chippenham) is thanked for his communication. We would rather meet the subject alluded to in connexion with cases in which our own profession shows more to advantage than it does in the present instances.

Dubious, (Sheffield.)—The subject is one which has attracted some attention of late. Cases in which sterility has followed an attack of double epididymitis are described by M. Gosselin, Mr. Curling, and others; but it does not by any means follow, because it happens in some cases, that it should in all, and we should be inclined to form a favourable prognosis from the description of the case given by our correspondent.

THE SICK-CLUB SYSTEM.

THE length of *Dr. J. H. Tylecote's* communication precludes the possibility of its insertion this week.

E. T. (Bethnal-green) communicates his personal experience of the value of oil of turpentine and warm water in the treatment of burns. The details are interesting as a concise record of facts; but they do not contain anything that is not already well known.

W. H. C.—Too late for this week; but our correspondent shall receive a reply in our next number.

UNQUALIFIED ASSISTANTS.

To the Editor of THE LANCET.

SIR,—As an unqualified assistant, I beg to thank you sincerely for your article on this subject in your number of September 3rd. I certainly have no sympathy with "Spes." I would not accept of the qualification he would have for us. I feel keenly that many of the present diplomas are very much too easily obtained, simply because they are obtained by means of money and time, without a sufficient test of professional knowledge, and the sad result is that a highly honourable profession is lowered and degraded; for those who obtain their diplomas without any great professional knowledge cannot compete with the hard-working and experienced practitioner, and they, therefore, descend to mean subterfuges, contemptible quackery, and a system of pandering to the ignorant, and thus harass and injure their betters. The truth of this I can prove by pointing to some worthies in my immediate neighbourhood. I have known of several L.R.C.P.s and M.R.C.S.s of recent date lamentably deficient in practical knowledge, and whose diagnostic skill is at a very low ebb indeed.

As an assistant of many years' standing, and who has for the last seven years managed very large branch practices in a mining neighbourhood, where the most extended opportunity is got for the obtaining of a practical knowledge of the profession in every branch, and also one that bears the highest character, in addition to one who reads hard, I cannot help feeling it a great injustice to be classed with a raw youth in his 'teens in my classes and lectures—with one who has probably never felt a pulse with anything like an idea of its rate—who never looked at a tongue but mechanically, and because of a preconceived habit, but totally ignorant of its different lesions, and of the stethoscope. I consider it a great hardship to be obliged to follow the same classes and curriculum as one of these, and not to receive any benefit whatever from what I have learnt by means of the drudgery of years of hard labour. The last sentence of your article at once meets the difficulty. Let those of a certain age stand the test of an examination; and according to the standard they pass, let them be debited with in regard to attendance on lectures, &c.; and if we can come up to a second or third year's man in our entrance examination (with the *only* proviso that the examination must partake more of the practical than theoretical), let us be classed as such. I ask for no favour, excepting being tested practically, and I would insist upon not lowering the present standard of examinations.

Apologising for trespassing so much on your space, thanking you for allowing the question to be discussed in your valuable journal, and praying for your aid and assistance in obtaining the "concession to exact no evidence of any particular course of study, but only to examine them as to their actual knowledge,"

I am, Sir, yours, &c.,
September 6th, 1870. UNQUALIFIED.

To the Editor of THE LANCET.

SIR,—As an unqualified assistant of some years' standing, will you allow me to thank you on my own behalf, and I am sure on that of numerous others similarly placed, for the suggestion thrown out in your annotation of the 3rd instant. There are many of us who, having started on our professional career with every hope and prospect of success, have had it suddenly cut short by the unexpected death or ruin of those on whom we relied for the means with which to prosecute our studies to a successful termination, and have been compelled to fall back upon the only way open to us for procuring a subsistence, short of relinquishing professional work altogether.

As a rule, our salaries are not more than sufficient for our present needs; so that, under the existing regulations, the chance of obtaining a qualification is a most remote and, in fact, without some extraneous assistance, almost an impossible one.

If, therefore, could be thrown open, through which, on arriving at a specified age, producing some such certificates as the undermentioned—1st, of good moral character; 2nd, of having passed the usual Arts examination; and 3rd, of having been occupied for some term of years in attending medical, surgical, and midwifery cases under the surveillance of a duly qualified medical practitioner, and passing a practical examination on the various subjects at present required,—we could enter the ranks of the profession, it would be received as a priceless boon.

Trusting, Sir, that this may be but the beginning of an agitation, which, by the combination and strenuous efforts of those so vitally interested, and with the aid of an occasional article from your powerful pen, shall be carried to a successful issue,

I am, Sir, your obedient servant,
September, 1870. SPERO AD FINEM.

To the Editor of THE LANCET.

SIR,—As one of the class of men I think very unjustly spoken of by your correspondent, "R. H. L.," in his apparently spiteful comments upon another correspondent's letter, signed "Spes." I beg you to allow me to add my protest against anything so manifestly tyrannical as he seems to have so much at heart—namely, to place in a state of hopeless poverty many hundreds of unqualified assistants, who have hitherto been, as "Spes" put it, "a very useful body of men." I should very much like to know under what circumstances "R. H. L." regards the unqualified assistant as "an evil." Certainly not, as he appears to believe, "by being *unfair* to those who possess a diploma." I would rather say certificated assistants are unfair to themselves; for they are generally so overburdened with profession-al (?) pride, that they scorn duties they consider mean, but which are, nevertheless, necessary to be done in every medical man's establishment. Again, what "dangerous portal" would be opened to the medical profession by allowing a body of men (many of whom have helped their employers to wealth) a right to live on in the employment they have ever subsisted on? I think the gate fraught with so much danger must have existed in the imagination of "R. H. L.," or I must be wanting some lens to assist my vision. Therefore I cheerfully add my feeble support to the suggestions of "Spes."

I remain, Sir, yours truly,
September 19th, 1870. J. W. J.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to say a few words concerning legally unqualified assistants. There are many legally unqualified assistants who commenced their pupilage with as fair prospects as "R. H. L.," and whose birth and education would enable them to claim the title of "gentlemen" with quite as much right. Owing to some unforeseen and unexpected misfortune, they are prevented from at once entering on their recognised professional education, which is therefore unavoidably postponed. I am no advocate for the qualification suggested by "Spes;" yet I agree with him in thinking that in some cases the distinction between legally qualified and legally unqualified assistants, as far as regards practical usefulness, exists only verbally. As a general rule, we are qualified for the duties we are allowed to undertake; if it were otherwise, it is very obvious that medical practitioners would not engage our services. Taking it for granted that our existence is an evil, yet it is not our choice—"Necessitas non habet leges,"—and I do not see how we can justly be censured. With all due deference to legally qualified assistants, I would ask, would it not appear a little more generous to regard our unenviable position as one rather of misfortune than that of an alien?

Yours respectfully,
September, 1870. A LEGALLY UNQUALIFIED ASSISTANT.

*** We can easily understand that many unqualified assistants remain unqualified for reasons which they cannot prevent. That is no reason, however, why they should be legally recognised. Such a course would be inconsistent with the public interest, and, in the long run, injurious to unqualified assistants. It would encourage them to be content with imperfect knowledge and an inferior status.—ED. L.

Pro Bono Publico.—Such a use of the titles specified by our correspondent is probably a violation of the Medical Act; but clause 40 of that Act is not framed so as to stop such a custom, or so as to encourage any attempt at prosecution. The next Medical Act will probably define much more accurately the nature of illegal practice.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. F. C. Skey; Dr. Hyde Salter; Dr. Hynes, Nottingham; Mr. Curran; Mr. Henry Lee; Mr. Booth, Huddersfield; Mr. E. Smith; Mr. W. Tyler; Mr. Whiteman; Dr. Stewart, Sheffield; Mr. Evans; Mr. Leonard; Mr. Farey, Kettering; Mr. B. Gravely; Dr. Baker, Thirsk; Messrs. W. Thomas and Brothers; Dr. Corry; Dr. Schmidt; Dr. Page, Newcastle-on-Tyne; Mr. C. Adcock; Mr. Jamieson, Shanghae; Dr. Long, Canning Town; Dr. Macdonald, St. Andrews; Dr. Ryley; Dr. Whalley, Bradford; Dr. Tompsett, Norwood; Mr. Cooper, Widnes; Mr. Hill; Mr. Keith, Sunnyside; Mr. Colquhoun; Dr. Falloon, Liverpool; Dr. Sweeting, Stratford; Dr. Eager; Dr. Jackson, Plymouth; Dr. Gill, Dover; Mr. Newington, Tenterden; Mr. Dickason; Dr. Redwood, Rhymney; Mr. Lyon; Dr. Tylecote, Swindon; Mr. Kelly, Monmouth; Mr. Austey Peterborough; Dr. MacNab, Bury St. Edmunds; Dr. Reeve; Mr. Main, Windsor; Mr. E. Rowell; Mr. Tomson, Luton; Mr. W. Harland Dr. Browne, Wakefield; Mr. E. J. Wood; Mr. Merritt, Taunton; Mr. Blasson; Dr. Ratton, Lee; Mr. J. Morgan, Crickhowel; Mr. Burnby, Southsea; Mr. Dickson, Chichester; Mr. Price; Mr. Blake; Mr. Park; Dr. Rhodes, Weymouth; Mr. West; Miss Berrecastle, Brigston; Dr. Great Rex, Kidsgrove; Mr. James; Dubious; Pro Bono Publico; Highland; Delta, Bengal; Alpha; A General Practitioner; J.; Henricus; V. S.; Medicus; A Crimean Surgeon; One of the Old School; W. H. C.; Another Reformer; S. S.; Atlas; F. K.; M.D., F.R.C.S.E.; A. H.; A. Y.; LL.D.; Idiotes; &c. &c.

Essex Standard, Shield, Croydon Chronicle, Yarmouth Constitutionalist, Parochial Critic, Lancaster Guardian, Rock, Northern Echo, and *Brighton Examiner* have been received.

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